

EQUITABLE CO-MANAGEMENT ON THE KUSKOKWIM RIVER

By

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Abstract

A legally empowered equitable co-management system of the Kuskokwim River salmon fishery between subsistence users and state and federal managers does not exist. Despite federal legislation Alaska National Interest Lands Conservation Act (ANILCA) (Section 8) calling for a “meaningful role” for subsistence users in managing fish and game on federal lands, some rural subsistence users believe that they have yet to assume a “meaningful role” in the policy-making process. The absolute maximum capacity that subsistence users can fulfill in terms of participating in the management of the resources they depend on comes in the form of one of many advisory boards. Ultimately, management regimes and policymakers do not have to consider advisory council member recommendations, suggestions and/or group proposals.

On the Kuskokwim River, the decline of king salmon, perceived mismanagement, general mistrust of management agencies, inter-river conflict, and lack of authority and accountability felt by local users, has prompted some subsistence salmon fishermen to press for a stronger role in salmon management. The United States Fish and Wildlife Service (USFWS) and the Kuskokwim River Inter Tribal Fish Commission (KRITFC) have developed a Memorandum of Understanding (MOU) pertaining to the management of the fishery. The Alaska Department of Fish and Game (ADFG) has not entered into negotiations with the KRITFC and United States Fish and Wildlife Service (USFWS) regarding management. This thesis explores the history of the Kuskokwim salmon fishery and options available to Alaska Native subsistence salmon users who seek an equitable role in managing the fishery.

Dedication

Dedicated to the Memory of Edward Roy “Sonny” Hoffman

November 7th, 1942 – July 20th, 2010

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Introduction

For several millennia prior to contact with non-natives, thousands of people living throughout Alaska did so within a structure of relatively informal organization systems. Lieutenant A.L. Zagoskin, working for the Russian American Company along the Kuskokwim River in the mid-nineteenth century, wrote that among the Yup'ik of western Alaska "the spirit of community living is such that the charitable, or better liberal, man earns general respect; nevertheless each one remains free in his actions and nothing ties the poor man to the service of the rich."¹ He added that there seemed to exist an unspoken consensus among individuals in individual settlements and that it appeared as though "all those living" together agree to "carry the general responsibility" and that "they recognize no difference of rank among themselves."² In other words, social arrangements were fluid, flexible, and unobstructed, and all revolved around the fundamental objective of survival.

These pre-contact peoples lived in an environment that demanded they be in a perpetual state of adaptation; life, and how to live, were dictated by seasonal changes and resource availability. As such, indigenous peoples developed intimate relationships with their surroundings and took great care and precaution in the management of the natural resources on which they depended. The transmission of this knowledge, which presumably became more and more fine-tuned as time passed, was critical to the survival of subsequent generations. As time

¹ Lavrentiy Zagoskin, *Lieutenant Zagoskin's Travels in Russian America 1842-1844*, ed. Henry Michael (Toronto: University of Toronto Press, 1967), 222.

² *Ibid.*, 222-223.

progressed however, several significant changes began to unfold. Indigenous peoples would be forced to adapt much more expeditiously, and on unfamiliar terms. Beginning with Russian fur traders' exploitation of Alaska Natives and continuing with the U.S. colonization of Alaska, Native peoples were gradually stripped of their inherent rights to govern the usage of natural resources. As a result, Alaska Natives increasingly fell under management systems that were, and may continue to be, fraught with unfamiliar, unfavorable, unaccommodating, uninformed, unfair, and often confusing rules and regulations. Many subsistence salmon fishers living in dozens of villages stretched along the state's second largest river, the Kuskokwim, feel as though they have assumed a "meaningless" role in the management of the Kuskokwim River subsistence salmon fishery.³

Subsistence salmon fishers on the Kuskokwim River may continue to maintain what they perceive as a meaningless role in salmon management until a legitimate co-management structure is put in place. Some users argue that the current management structure fails to accommodate subsistence salmon fishermen on the Kuskokwim River because fishermen do not have an equal say in management. No legally binding agreement mandates that local subsistence user input be taken into consideration during the policymaking process. Accountability rests solely with the management agencies. Management agencies and users share similar goals,

³ Mark Leary, "Director's Report: Inaugural Meeting of the Kuskokwim Inter-Tribal Fisheries Commission," accessed May 2015, <http://napaimute.org/2015/05/08/directors-reportinaugural-meeting-of-the-kuskokwim-inter-tribal-fisheries-commission-may-5-6-2015-bethel-alaska/>; Mark Trahant, "New Inter-Tribal Fish Commission Formed to Give Alaska Tribes a Say." Indian Country Today. Accessed May 2015. <https://indiancountrymedianetwork.com/news/politics/new-inter-tribal-fish-commission-formed-to-give-alaska-tribes-a-say/>.

primarily the creation and maintenance of a sustainable salmon fishery. Law mandates this goal. Yet much more is at stake for local Yup'ik and Athabascan subsistence salmon users, the people who directly rely on this resource.⁴

Despite the well-intended approaches of management agencies, some users argue that the current dual management structure lacks a vital component that could help build capacity between users and management agencies. Many subsistence salmon users resent their lack of a meaningful role in management. As a group who arguably has a greater vested interest in the resource, as well as a substantially longer history in dealing with said resource, users feel as though it is their right to shoulder an equal amount of management responsibility. In addition, many subsistence users indicate that the dual-management (federal and state) system and the policies and regulations that are implemented marginalize communities.⁵ On one hand, we have a state agency that will not cede any management authority to local users.⁶ Yet on the other hand, federal law mandates protection of local users (Alaska Natives in particular), their rights, interests, and resources.⁷ Furthermore, federal legislation mandates that users have a right to participate in the management process. Lastly, inter-river conflict among residents who live in

⁴ Chris McDevitt field notes Lower and Middle Kuskokwim River In-Season Monitoring projects June-July 2015-2017.

⁵ Ibid.

⁶ See Section 5.1 "Subsistence Management"

⁷ Based on the Federal Trust Responsibility; to be discussed in Chapter 2 Section II

different regions of the Kuskokwim drainage hinders cohesive decision making among users, and further complicates user roles in the management process.⁸

The management structure on the Kuskokwim River is complex. As a result, there are many local subsistence salmon users who are unfamiliar with the roles and responsibilities of state and federal management agencies.⁹ Such confusion is understandable. The river crosses through thousands of square miles of state and federal lands. Approximately three hundred miles of the Kuskokwim are bound within the twenty million-acre Yukon Delta National Wildlife Refuge (YDNWR).¹⁰ Although this area falls under federal jurisdiction, the Alaska Department of Fish and Game's (ADFG) Commercial Fisheries Division shoulders a considerable amount of the research and management responsibilities. In addition, state and federal laws pertaining to subsistence differ significantly for rural, versus urban, residents of Alaska. Some residents do not distinguish between state and federal agencies because they do not understand who belongs to which division or what they manage. Others knowingly lump all agencies into the enforcement category.¹¹

⁸ McDevitt field notes Lower and Middle Kuskokwim River In-Season Monitoring projects June-July 2015-2017

⁹ Ibid.

¹⁰ "About the Refuge," Yukon Delta National Wildlife Refuge, accessed June 2014, https://www.fws.gov/refuge/Yukon_Delta/about.html.

¹¹ McDevitt field notes Lower and Middle Kuskokwim River In-Season Monitoring projects June-July 2015-2017

Although these bureaucratic institutions have been in place along the Kuskokwim for several decades, many users remain unfamiliar with how the whole salmon management system works. Nevertheless, some local users demand an equal role in management; a co-managed salmon fishery, with each side assuming an equitable share of responsibility and accountability.¹² This goal cannot be achieved when federal and state managers refuse to cede any management authority. Nor can users expect to effect any real change if they continue to be underrepresented on a major decision-making board; the State of Alaska's Board of Fisheries (BOF). Therefore, two research questions guide this inquiry: What tools do local users have at their disposal to effect change within the current management system? Furthermore, what value would a co-management system bring to the Kuskokwim River subsistence salmon fishery?

Methods

This research draws upon seven years of ethnographic fieldwork that included participant-observations recorded in written field notes, personal communications, and unstructured interviews with hundreds of residents of numerous villages along the entire length of the Kuskokwim River. My inquiries into the subject began during the summer of 2009 when I was a resident of the western Alaska regional hub community of Bethel. During that time, I developed an interest in Yup'ik culture and subsistence salmon fishing on the Kuskokwim River. My interest in the latter was initially triggered by puzzlement at how and to what extent local people affected the decision-making processes in the context of subsistence salmon fishing on the Kuskokwim River. Despite living and working among lifelong subsistence salmon users, the

¹² Ibid.

majority of whom were Alaska Natives (namely Central Yup'ik), I never could solve this riddle. I recognized early on the importance of salmon to people living throughout the Kuskokwim drainage, and found it confusing that local subsistence salmon users were subjected to rules and regulations that were created, implemented, and enforced by state and federal agencies that were far-removed from local communities. I spoke with coworkers and friends and began to gain a better understanding of the situation but yearned to learn more and pledged to do so, even though I left Bethel in 2010.

In the fall of that year I moved to Fairbanks and enrolled in the wildlife biology program at the University of Alaska Fairbanks (UAF). During my time in the program I learned more about natural resource management in Alaska. In the fall of 2012 I was accepted into the Northern Studies graduate program at UAF, where I continued to learn about Alaska state government, the state constitution, and the various pieces of legislation that have defined subsistence usage in rural Alaska. Shortly thereafter I began volunteering with the Alaska Department of Fish and Game (ADFG) Division of Subsistence. This opportunity allowed me to build upon my understanding of natural resource management agencies in Alaska, with a particular focus on subsistence salmon fishing on the Kuskokwim River. In 2014 I began my employment with the Division of Subsistence as a Fish & Wildlife Technician III. In this position, I collected and analyzed subsistence harvest information from rural subsistence users through subsistence harvest surveys, ethnographic interviews, and participant observation. Because of my familiarity with natural resource management issues specific to western Alaska, I became part of the “western region” team within the Division of Subsistence, a group of researchers solely devoted to subsistence research on the Yukon-Kuskokwim Delta (YKD). Since then, I have been directly

involved in several research projects that revolve around subsistence salmon fishing on the Kuskokwim River. Beginning in 2015 I became involved in two in-season subsistence salmon fishing monitoring projects on the lower and middle Kuskokwim River. I acted as co-lead investigator on the lower Kuskokwim River project during the summers of 2015, 2016, and 2017, and assumed the same role for the middle Kuskokwim River project during the summers of 2015 and 2016. During the summer of 2017 I assumed the role of lead investigator on the middle Kuskokwim River project.

The first project was concerned with gathering real-time subsistence salmon harvest data from lower Kuskokwim (Tuluksak to Kuskokwim Bay) fishers. For this project I worked directly with several lower Kuskokwim communities, tribal representatives, and local fishers. I first sought and gained approval to conduct the research through direct consultation with local tribal councils. Subsequently, we hired dozens of local fishers from several different lower Kuskokwim villages to record their salmon harvest data as the harvesting took place. Fishers were given paper forms to document the timing of their catch, method used, number and species of salmon caught, as well as any other pertinent information related to their fishing. The primary purpose of the lower Kuskokwim River in-season monitoring project was to collect, analyze, and relay this real-time quantitative subsistence salmon fishing information to management agencies in order to better facilitate in-season decision making processes.

The middle Kuskokwim River in-season monitoring project was more focused on collecting qualitative data. For this project, a team of ADFG researchers worked with locally hired research assistants from various middle Kuskokwim River communities. During the summers of

2015, 2016, and 2017, researchers collected qualitative subsistence salmon fishing information through the administration of household surveys and the conducting of informal interviews among local residents of all eleven middle Kuskokwim villages. The surveys and interviews focused on the salmon needs of households and whether these needs were being met during a particular season.

In addition, I acted as co-lead (lower Kuskokwim) and lead researcher (middle Kuskokwim) for a recently developed community outreach program that was implemented during the summer of 2017. In this capacity, I travelled to several lower and middle Kuskokwim communities and met with local tribal councils, community organizations, and local residents, and addressed questions, comments, and concerns related to in-season management decisions as they pertained to subsistence salmon fishing. For many of these communities, I acted as the direct point of contact for tribal councils and local subsistence fishers who requested consistent communication feeds that pertained to up-to-date fishing regulation information, management decisions, and a variety of other information directly related to the management of subsistence salmon fishing.

Furthermore, I have represented the ADFG Division of Subsistence at several Kuskokwim River Salmon Management Working Group (KRSMWG) meetings to present quantitative and qualitative subsistence salmon fishing data to management agencies, tribal councils, Alaska Native leaders, and local fishers. I also represented the Division at a Board of Fisheries meeting in Fairbanks in 2016.

Over the course of nearly a decade, I have spoken to hundreds of local subsistence salmon fishers living in communities throughout the Yukon Kuskokwim Delta and middle and upper Kuskokwim River. My work in all of these roles has afforded me the unique opportunity to gain insights from and the perspective of local people -- the people who are directly impacted by management decisions.

Chapter one of this thesis provides a historical context of the Kuskokwim region beginning with the expansion of the Russian fur trade into the middle Kuskokwim area with an emphasis on the ethnographic contributions made by these early explorers. I then explore contemporary Kuskokwim River dynamics as they pertain to regional similarities and differences in the context of subsistence harvests. I also discuss contemporary demographic information among communities situated along the Kuskokwim, with a focus on regional subsistence fish harvests.

Chapter two considers the history of the region through the eyes of early twentieth century American observers. This parlays into a discussion of the historical relationship between indigenous peoples and the U.S. government based on the Federal Trust Responsibility (FTR). I also examine the Alaska State constitution within the context of natural resource management. Other foci within this chapter include an analysis of two specific pieces of federal legislation that have had far-reaching implications for Alaska Natives and their subsistence rights. Subsequently, I present Alaska Native leaders' perspectives on the shortcomings of state and federal management agencies in protecting subsistence rights.

Chapter three comprises the Literature Review for this thesis, a review of organizational and institutional theories that sheds light on the challenges to co-managing or collaboratively

managing natural resources. I focus on the structural differences between formal and informal organizations, both in general terms and within the context of the management agency/subsistence user relationship on the Kuskokwim River, and how these differences present communicative difficulties between management agencies and local users. I also discuss issues associated with common pool resource usage and what role organizations play in addressing these issues.

Chapter four defines and analyzes co-management concepts. I examine the typical provisions associated with land claims agreements, and how co-managed systems function, or do not, in Canada. In Alaska, I outline how the management agencies, Alaska Department of Fish & Game (ADFG) and the U.S. Fish & Wildlife Service (USFWS), define co-management and present both agencies' justifications for engaging in collaborative management systems, an approach that both institutions consider to be an alternative solution to a co-managed system.

Chapter five examines the Kuskokwim River Inter-Tribal Fish Commission and its mission. I discuss subsistence management in Alaska, the difference between land claims agreements and treaties, and how these differences affect natural resources management. I also discuss Traditional Ecological Knowledge (TEK) and the value it could bring to management. Lastly, I look at the perceived pitfalls of integrating traditional knowledge into policy-making, with a focus on cases in northern Canada.

Finally, chapter six summarizes this thesis and states my conclusions.

Chapter 1

A Historical Perspective

From the first Russian fur traders to the bureaucratic gauntlet that came with colonization by the United States, the indigenous peoples of Alaska have borne witness to repeated assaults on their culture. Gwich'in leader Evon Peter observes: "For the past couple hundred years the sovereign authority of Alaska Native nations has been undermined by both Russia and the United States as they have embarked on the process of western colonization."¹

The oldest human remains found thus far in Alaska date back to around 9,489 BCE,² but archaeologists believe that human beings have been living in Alaska for at least 15,000 years.³ Archeologists believe that at the time of contact with non-natives, beginning around the mid-1700s, approximately 80,000 people inhabited Alaska.⁴ Today, close to 738,000 people live in Alaska and 15 percent of the state's population is Alaska Native.⁵ As was the case with American Indians in the continental United States, Alaska Natives have experienced rapid socioeconomic

¹ Evon Peter, "Undermining Our Tribal Governments: The Stripping of Land, Resources, and Rights," in *Alaska Native Reader: History, Culture, Politics*, ed. Maria Shaa Tlaa Williams (Durham: Duke University Press, 2009), 178.

² Doug O'Harra, "Scientists Discover Alaska's Oldest Human Remains," *Alaska Dispatch News* (Anchorage), February 24, 2011.

³ "Alaska's Prehistoric and Protohistoric Past." Alaska Humanities Forum: Alaska History and Cultural Studies, accessed June 2014, <http://www.akhistorycourse.org/alaskas-cultures/alaskas-heritage/chapter-2-1-alaskas-prehistoric-and-protohistoric-past>.

⁴ Eric Sandberg, "A History of Alaska Population Settlement." Research and Analysis Section, Alaska Department of Labor and Workforce Development (April 2013): 4.

⁵ Alaska Department of Workforce and Labor Development. "Alaska Population Estimates," accessed June 2014, <http://live.laborstats.alaska.gov/pop/>.

and cultural change in a relatively short time. For example, Peter argues that “up until the 1950s, Alaska Native people were subject to colonial and genocidal pressures . . . disease, Christian missionaries, destruction of indigenous religions, forced Western-style boarding schools, restrictions on hunting, fishing and other subsistence practices, and the strict English-only policies . . . that all took a tremendous toll on Alaska Native societies and almost destroyed them.”⁶

During the period between the first contact with Russians around 1741 and the Treaty of Cession of 1867, the Alaska Native population decreased by half.⁷ The Russians came for furs and brought disease. Traders based their operations primarily in the Aleutians, south central, and southeast Alaska. In describing the early contact between Russians and Alaska Natives, former Alaska state senator William Hensley concluded, “the Russians exploited Alaska from 1741 to 1867.” In 1867, the Treaty of Cession brought Alaska into the hands of another colonial power, the United States.⁸

1.1 Early Russian Exploration

In the interest of expanding the Russian-American Company’s commercial activities, the company appointed Lieutenant Lavrenty Zagoskin of the Russian Navy to lead an expedition into

⁶ Maria Shaa Tlaa Williams, “A Brief History of Native Solidarity.” in *Alaska Native Reader: History, Culture, Politics*, ed. Maria Shaa Tlaa Williams (Durham: Duke University Press, 2009), 202.

⁷ *Alaska's Population and Economy Statistical Handbook*, vol. 2, (1903), 7.

⁸ William Hensley, “Why the Natives of Alaska Have a Land Claim.” *Annual Report of 1968*, Indian Claims Commission, 1968.

the thus far unexplored interior reaches of western Alaska. Zagoskin would later be credited with having compiled the earliest comprehensive documentation of the interior expanses of the Yukon-Kuskokwim region by a non-native. The Russian-American Company commissioned this work between the years of 1842-1844. A decade earlier, Fedor Kolmakov, “a Creole and companion” of Russian explorer A. A. Baranov, first general manager of the Russian-American Company, established a trading post in the middle river region at the confluence of the Holitna and Kuskokwim Rivers, near present day Sleetmute.⁹ Shortly thereafter, Kolmakov established Ft. Kolmakov on the opposite bank of the Kolmakof River, approximately 8.5 miles downriver from present day Napaimute. Kolmakov chose the latter location to facilitate trade between the Russian-American Company officials and people living along the lower Kuskokwim River.¹⁰

The Kuskokwim portion of Zagoskin’s expedition began near present day Kalskag, his having reached the overland portage from the Yukon River village of Ikogmyut (present day Russian Mission) in November 1842.¹¹ Zagoskin chose the location of the crossing because it provided the shortest distance between Alaska’s two largest rivers. As Zagoskin described, it is at this point that the “Kuskokwim River soon resumes its southwesterly course to meander across the Yukon-Kuskokwim delta . . . approaching within twenty-five miles of the Yukon.” From there, Zagoskin and his men traveled further into the middle and upper river country.¹²

⁹ Zagoskin, *Lieutenant Zagoskin's Travels*, 339.

¹⁰ *Ibid.*, 252.

¹¹ *Ibid.*, 203.

¹² *Ibid.*, 272-273.

According to an 1842 Russian Colonies administrative report, the expedition intended to fulfill several unanswered questions, including: “Where is it most profitable and most convenient to establish forts and trading posts so that they will not interfere with one another in their trading with the natives? In this country, so rich in rivers, what are the most practical route of communication between the forts and the coast?”¹³

Specific directives instructed Zagoskin “to follow from Fort St. Michael to their sources, the two rivers Yukon and Kuskokwim”¹⁴ as well as to “put down the most satisfactory description possible of the country drained by these rivers and to ascertain the most practical and shortest portages from one river to another.”¹⁵ Ultimately, Zagoskin did not locate the source of either river. After reaching the Takotna River, a tributary of the upper Kuskokwim, Zagoskin was unable to gather sufficient information from local natives to locate Titlogit -- an alleged Athabascan settlement he intended to visit and thought to be located at “the source of the Kuskokwim.” Although the party was “sorely tempted to keep on to the source of the Kuskokwim,” due to insufficient information “it was with sorrow” and reluctance that the expedition returned downriver to Ft. Kolmakov.¹⁶

¹³ Ibid., 82.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid., 272.



FIGURE 1: PORTAGE MOUNTAINS NEAR LOWER & UPPER KALSKAG. ZAGOSKIN FIRST ENTERED THE KUSKOKWIM RIVER IN THE VICINITY OF THESE MOUNTAINS IN THE MID-19TH CENTURY. C. MCDEVITT JULY 2015

Despite the expedition's not reaching the Kuskokwim's headwaters, Zagoskin gathered substantial information about the surrounding country and its inhabitants. Zagoskin was the first non-native explorer to do so in such exhaustive fashion. He compiled comprehensive documentation of: flora, fauna, topography, inhabitants and their dress, customs, culture, subsistence activities, seasonal rounds, physical appearance, and languages.¹⁷ At the time, native groups in the Kuskokwim region had experienced very little contact with outsiders and were living as they had for thousands of years.

¹⁷ Ibid., 208-231.

Zagoskin documented the importance of fish to the local Native populations, noting that “the basic food of the . . . Kuskokwim natives is fish in various forms,”¹⁸ and adding that the Kuskokwim offers its “wealth to the natives living on” its banks, “especially” in its “lower reaches.”¹⁹

Zagoskin’s observations included resource comparisons of the Yukon and Kuskokwim Rivers, and indicated that the latter “was far poorer than the Yukon in numbers, variety, and size of fish.”²⁰ Therefore, Zagorskin concluded that “natives who live . . . in the settlements nearest Ft. Kolmakov are more interested in hunting deer, beaver, otter, and the other fur-bearing animals which provide them with food.”²¹ He discussed seasonal changes and the annual return of specific species of fish: “When the river opens up and the ice has gone out, the traps are set for small types of whitefish. The first king salmon appear around the middle of June, and after that the blueback salmon [most likely sockeye salmon] and the dog salmon.”²²

Although much has changed on the Kuskokwim since Zagorskin’s journey, in regard to the seasonal round of subsistence activities, most of what he described nearly two centuries ago holds true today. Fish, as do many other resources, remain a staple in people’s diet despite

¹⁸ Ibid., 219.

¹⁹ Ibid.

²⁰ Ibid., 220.

²¹ Ibid.

²² Ibid., 253.

fluctuations in resource availability and access, and despite being subjected to federal and state management agency rules and regulations.²³

1.2 River Dynamics

From its heavily forested and mountainous middle and upper portions to the treeless tundra expanses of the lower delta, the Kuskokwim River flows over 700 miles from its sources in the western Alaska Range to its mouth at the Bering Sea. The Kuskokwim lies in the western portion of the state and drains a total land area nearly the size of Alabama. Its corridor and delta account for 11 percent of the total land area in Alaska.²⁴

The Kuskokwim River can be divided into three major regions: lower, middle, and upper. McGrath and Nikolai are the main population centers in the upper portion of the river. Lower and Upper Kalskag, Aniak, Chuathbaluk, Napaimute, Crooked Creek, Georgetown, Red Devil, Sleetmute, Stony River, and Lime Village comprise the villages of the middle river. Lower river communities include Eek, Tuntutuliak (tundra village ²⁵), Atmautluak (tundra village), Nunapitchuk (tundra village), Kasigluk (tundra village), Napakiak, Napaskiak, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, and Tuluksak. Approximately 13,400 people live along the Kuskokwim

²³ Chris McDevitt, personal observation based on work as a Subsistence Resource Specialist I/II, Division of Subsistence, Alaska Department of Fish and Game, November 2014 to present.

²⁴ "Chinook Salmon Research Initiative Kuskokwim River Chinook Salmon," Chinook Stock Assessment and Research Project, Alaska Department of Fish and Game, accessed July 2016.
http://www.adfg.alaska.gov/index.cfm?adfg=chinookinitiative_kuskokwim.main.

²⁵ Villages not located directly on the main stem of Kuskokwim River.

River not including the coastal villages of Kuskokwim Bay: Qhuinhagak, Kongiganak, and Kwigilinok.²⁶



FIGURE 2: LOWER KUSKOKWIM RIVER NEAR BETHEL. C. MCDEVITT JUNE 2015

1.3 Demographics and Regional Harvests

Many Alaskans' livelihoods depend directly upon the harvest and consumption of several varieties of wild foods, especially residents of rural Alaska. Nowhere else in the state (or the United States, for that matter) do individuals harvest and consume more wild foods. Rural residents annually harvest close to 44 million pounds of wild foods,²⁷ compared to approximately

²⁶ "Community Database Online," Alaska Department of Commerce, Community, and Economic Development, accessed July 2015, <https://www.commerce.alaska.gov/dcra/DCRAExternal>.

²⁷ Robert J. Wolfe and Charles J. Utermohle, "Wild Food Consumption Rates for Rural Alaskans," Technical Paper 261. Alaska Department of Fish and Game, June 2000.

13.4 million pounds of wild foods taken by Alaskans living in all other areas.²⁸ In other words, 32 percent of the state's population harvests over 73 percent of the annual wild food harvest in Alaska.²⁹



FIGURE 3: DRYING SALMON AT A HOME IN AKIAK. C. MCDEVITT JULY 2015

With the exception of marine mammals harvested along the coast, subsistence users residing in any one of the three distinct regions of the Kuskokwim typically harvest the same types of resources. That is not to say, however, that marine mammals are not used in communities throughout all portions of the river. Zagoskin noted the importance of marine

²⁸ "Subsistence Use in Alaska: What Is Subsistence Use?" Alaska Department of Fish and Game, accessed June 2015, <http://www.adfg.alaska.gov/index.cfm?adfg=subsistence.main>.

²⁹ "Community Subsistence Information System." Alaska Department of Fish and Game, accessed June 2015, <https://www.adfg.alaska.gov/sb/CSIS/>.

mammals among people living hundreds of miles from the coast along the middle river and wrote that it is considered “not healthy to eat fresh or dried fish every day without the addition of sea-mammal fat. This is brought from the natives of the lower Kuskokwim.”³⁰ Similarly today, not all harvested species are taken within close proximity of the community of residence. For example, oftentimes large land mammal hunters who reside in lower river villages travel great distances beyond their home range in search of moose or caribou.³¹

Nevertheless, all communities on the Kuskokwim depend on the annual fish harvest. Although residents harvest moose, caribou, bear, other furbearing animals, migratory and upland game birds, edible greens, berries, they rely most heavily on fish. Resource availability and abundance varies among regions of the Kuskokwim. The nature of the river and surrounding ecosystems dictates this distribution. Human factors, such as increased hunting and fishing pressure, or the destruction of habitat, also impact the natural cycle. Aside from these differences among the three regions of the Kuskokwim, the levels of traditional dependence, as well as the harvest intensity of particular resources, ultimately differentiates one region of the river from another.³²

Traveling by boat from the lower river into the middle and upper river portions reveals not only dramatic changes in the physical landscape, but also significant demographic

³⁰ Zagoskin, *Lieutenant Zagoskin's Travels*, 53.

³¹ Chris McDevitt, personal observation based on work as a Subsistence Resource Specialist I/II, Division of Subsistence, Alaska Department of Fish and Game, November 2014 to present.

³² Ibid.; “Community Subsistence Information System” Alaska Department of Fish and Game, <https://www.adfg.alaska.gov/sb/CSIS/> for specific community wide subsistence harvest information.

differences. Over 86 percent of all people living along or near the Kuskokwim reside in lower river villages below Lower Kalskag, near the northern boundary of the Yukon Delta National Wildlife Refuge (YDNWR). The most populous community is the regional hub of Bethel, which accounts for 56 percent of the total lower river population, and 48 percent of the entire Kuskokwim region population (excluding Quinhagak, Kwigilingok, Kongiganak). Bethel is approximately 65 percent Alaska Native, while the remaining lower river villages range between 91 percent Alaska Native (Oscarville) and 98 percent Alaska Native (Eek); nine of the thirteen villages in the lower river are over 95 percent Alaska Native.³³

By comparison, less than 11 percent of the total Kuskokwim region population resides in the middle-river communities, with approximately 1,462 people living in eleven villages. Aniak, the regional hub for the middle Kuskokwim River communities, is the most populous village with an estimated 501 residents in 2010.³⁴ Upper-river communities (McGrath, Nikolai, Takotna, Telida, Medfra) include approximately 500 people, nearly 70 percent of whom live in the regional hub of McGrath (pop 346 in 2010).³⁵ All of the middle and upper river communities are predominantly Alaska Native.³⁶

³³ "Community Database Online," Alaska Department of Commerce, Community, and Economic Development.

³⁴ "Community: Aniak," Alaska Department of Commerce, Community, and Economic Development, accessed July 2015, <https://www.commerce.alaska.gov/dcra/DCRAExternal/community/Details/319d7670-7304-4cb9-9b6b-afe9d3f2b94f>.

³⁵ "Community: McGrath," Department of Commerce, Community, and Economic Development, accessed July 2015, <https://www.commerce.alaska.gov/dcra/DCRAExternal/community/Details/e87f0b43-c6a0-4c7f-b013-dbbf132f4a3e>.

³⁶ "Community Database Online," Alaska Department of Commerce, Community, and Economic Development.

As mentioned earlier, all communities rely heavily on fish. Some regions, however, harvest considerably more fish than others. Population sizes partially explain the harvest level differences from one region to another. Resource abundance and traditional usage also factor into harvest levels.³⁷

Fish provide the bulk of the annual subsistence harvest for the majority of Kuskokwim River communities.³⁸ In addition to the annual subsistence salmon harvest, people typically harvest large amounts of non-salmon fish, especially in the lower river villages, and even more so in the tundra villages (villages not situated on the main stem of the Kuskokwim). Typically harvested non-salmon fish species include burbot, pike, and several species of whitefish (broad, humpback, least and Bering cisco, sheefish), and blackfish.³⁹

There are major differences in harvest compositions among the three regions. Fish are the most widely used resource throughout the entire river, but lower-river communities not only harvest more fish per capita, but also a greater variety of fish, compared to middle- and upper-river communities. The household usage of Chinook salmon is considerably higher for middle- and upper-river households. This does not necessarily mean that Chinook are less valued for lower-river households, but rather that lower river households harvest a wider variety of fish species compared to the species available or abundant in the middle and upper-river. Middle-

³⁷ Chris McDevitt, personal observation based on work as a Subsistence Resource Specialist I/II, Division of Subsistence, Alaska Department of Fish and Game, November 2014 to present.

³⁸ Wolfe and Utermohle, "Wild Food Consumption Rate Estimates"

³⁹ Chris McDevitt, personal observation based on work as a Subsistence Resource Specialist I/II, Division of Subsistence, Alaska Department of Fish and Game, November 2014 to present.

and upper-river communities rely more heavily on moose than lower-river communities (although lower-river communities' usage of moose has increased in the past several years) owing to greater resource availability.⁴⁰

Some residents of the middle river blame the highly populated lower-river regional hub of Bethel for the river's poor return of Chinook salmon. Overall, the lower river's annual harvest of Chinook is greater than that of the middle and upper-river. However, Chinook salmon is still a more widely used resource among middle- and upper-river communities; there are just far fewer people fishing in these regions compared to the lower river.⁴¹

⁴⁰ Hiroko Ikuta, "An Overview of Kuskokwim River King Salmon Harvest Data," Meeting presentation, Alaska Department of Fish and Game Board of Fisheries. Fairbanks: February 2016.

⁴¹ Ibid.



FIGURE 4: CONFLUENCE OF HOLOKUK AND KUSKOKWIM RIVERS. C. MCDEVITT JULY 2015

1.4 Conclusion

Contemporary seasonal subsistence activities among communities throughout the Kuskokwim drainage have changed little over time.⁴² Zagoskin's emphasis on resource dependence among Alaska Natives remains true today. Nearly two centuries later, traditionally used resources, such as fish, continue to be harvested today as they were in the mid-nineteenth century (and certainly prior to contact). However, resource abundance has experienced dramatic fluctuations since contact, partly due to population increase, but also as a result of the introduction of economically driven user groups (sport and commercial), cash economies, and

⁴² Chris McDevitt, personal observation based on Kuskokwim River-specific ethnographic work as a Subsistence Resource Specialist I/II, Division of Subsistence, Alaska Department of Fish and Game, November 2014 to present.

store-bought goods.⁴³ As noted above, the issue of abundance is a point of contention among communities spread throughout the regions of the Kuskokwim.⁴⁴ While Zagoskin recognized the growing dependence of Alaska Natives on western goods, he also realized that protection of the natural resources they depended on would not only help ensure compliance with Company directives and smooth trade relations, but would also afford protection to Alaska Native peoples and their cultures. Following the sale of Alaska in 1867 to the United States, other observers recognized the importance of protecting natural resources for the benefit and well-being of Alaska Natives. As time progressed, this awareness helped shape the evolution of the relationship between the U.S. government and Alaska Natives.

⁴³ Ibid.

⁴⁴ McDevitt field notes Lower and Middle Kuskokwim River In-Season Monitoring projects June-July 2015-2017.

Chapter 2

American Colonization

At the request of President Theodore Roosevelt, retired U.S. Navy Lieutenant George Thornton Emmons compiled a report on the conditions and needs of the Natives of Alaska which he presented to Congress in 1905. In the report, Emmons described the circumstances of all Alaska Native groups living throughout the territory close to four decades after the United States purchased Alaska. In doing so, Emmons provided a rather detailed description of the conditions that had befallen the “four ethnic stocks, living under varied conditions of country, climate, pursuits, and food supply”¹ in Alaska, because of contact with non-natives.

2.1 Emmons’ Report of 1905

Emmons differentiated between two broad Alaska Native groups. Tlingits, Haidas, and Tshimians composed the first class; Aleuts, Athabasacans, and Eskimos made up the second group. Emmons began his report by pointing out that the Alaska Native peoples were in limbo regarding citizenship status. Despite their compliance with the U.S. bureaucratic structure and their long-established relationship with the land and resources, Emmons noted that Alaska Natives were being discriminated against; they were not afforded the same rights that were “extended to strangers who come to the country for self-gain,”² adding that these individuals

¹ George Thornton Emmons, “Condition and needs of the Natives of Alaska: message from the President of the United States, transmitting a report on the condition and needs of the natives of Alaska made by Lieut. G.T. Emmons, U.S. Navy, retired.” Washington, D.C.: U.S. Government Printing Office, 1905. 12.

² Ibid.

came to exploit Alaska's resources "without any thought of permanent settlement."³ Emmons stressed the lack of protection for Alaska Natives: "The native, to the manor born, a permanent fixture in the country, who knows no other home, and who must of necessity remain, has practically no legal rights that the stranger has to respect."⁴ Emmons suggested that Alaska Natives should be given the opportunity to become U.S. citizens, and that "just laws be extended to these people" in order that they "be protected in their living."⁵

Emmons offered his own observations of the various Alaska Native groups. He wrote that Natives living in the southeast, compared to those living elsewhere in the territory, have proven to be "intelligent, honest, and good workers . . . quick to learn and anxious to improve their condition." Furthermore, "through their own exertions and industry, [they] have established themselves as an independent, self-supporting population, fully capable of rendering such labor as the conditions of the country demand."⁶

Speaking on the second class of Alaska Natives, the author suggested that these individuals' "needs are more material"⁷ compared to the needs of the southeast Natives. He argued that the Aleuts, Athabascans, and Eskimos, "require supervision and government

³ Ibid., 3.

⁴ Ibid.

⁵ Ibid.

⁶ Ibid., 2.

⁷ Ibid.

assistance.”⁸ Emmons explained that “The opportunity to learn the methods of civilization have been denied them until our life has been thrust upon them in a day, and of course, they cannot understand its complexities.”⁹

Lastly, Emmons described the Natives living “between the Yukon and Kuskokwim rivers, and reaching inland 150 miles or more” as a “considerable population depending entirely upon fish and seal.”¹⁰ The author explained that the “life of this district has always been hard-- food, never overabundant, has often failed.”¹¹ Emmons continued with his description:

The natives are more settled in character, from the dependence upon the water for their food, although hunting must supply its share of the larder and the clothing. Those nearer the seaboard can, under ordinary circumstances, count on a sufficiency of fish, but with the ascent of the stream, and the many tributaries attracting the fish, the run becomes very limited, until those far inland, with every effort, find it difficult to procure enough to carry them through the winter.¹²

⁸ Ibid.

⁹ Ibid., 4.

¹⁰ Ibid., 7.

¹¹ Ibid.

¹² Ibid.

Emmons reiterated the vital importance of the salmon fishery to Natives living along these two river systems, noting that the “majority . . . are almost wholly fed by the salmon catch of the summer.”¹³

Along with the descriptions of Native peoples’ conditions in turn of the twentieth-century Alaska, Emmons provided several recommendations as to how the government should treat Alaska Natives. Like Roosevelt, Emmons recognized that there existed a “moral right and government obligation” to see that Native interests and well-being were being protected from the influx of white settlers.¹⁴

Emmons recommended that the government’s course of action in fulfilling the needs of Natives should include the establishment of schools, hospitals, and vocational training centers. Emmons saw the establishment of western institutions as the best approach to incorporating the indigenous population of Alaska into mainstream America. According to historian Frederick Hoxie, assimilation policies used by the Federal government during the period from 1880 to the 1920s, began to shift at the turn of the 20th century. As Hoxie argues, “The optimistic expectations of the 1880s by now were long forgotten” and that “Assimilation no longer meant full citizenship and equality.” He goes on to argue that assimilation now meant that indigenous peoples (namely American Indians) “would remain on the periphery” subjected to the rule of “outsiders.”¹⁵ This argument may be true for the time period it represents and for American Indians in particular.

¹³ Ibid., 20.

¹⁴ Ibid., 12.

¹⁵ Frederick E. Hoxie, *A Final Promise: The Campaign to Assimilate the Indians, 1880–1920* (Lincoln: University of Nebraska Press, 1984), 241.

However, considering subsequent legislation passed during the latter half of the 20th century, namely the corporatization of Alaska Natives through the Alaska Native Settlement Claims Act (ANCSA), it appeared as though the approach to assimilation shifted back to its original intention.

Stressing the critical importance of wild resources among all Alaska Native groups, Emmons recommended that “the present game law be modified.”¹⁶ A territorial game law had been in place since 1902, one component of which stated that “the Indians and Eskimos may at all times kill game animals or birds for their food and clothing.”¹⁷ Theoretically, this mandate should have afforded some protection of subsistence rights for Alaska Natives. However, an additional statute provided “that miners, campers, or travelers on a journey, in need of food, may at any time kill such game birds or animals as are necessary for food.”¹⁸ Individuals working as market hunters took advantage of this latter provision, and the increased competition resulted in user conflict.¹⁹

Emmons’ argument that the existing regulations were discriminatory “against the resident in favor of the stranger” was partly true. Although the 1902 statute explicitly allowed for Alaska Natives’ continued use of wild resources, it did not guarantee any protection of those rights. Moreover, the language in the second provision that allowed migrants to the region access

¹⁶ Ibid.

¹⁷ Ibid., 2.

¹⁸ Frances Cushman, *Report to Accompany H. R. 11535 (Game Law in Alaska)*. United States Congress House of Representatives, 1902: 6.

¹⁹ Ibid.

to resources as needed was left open to interpretation; furthermore, enforcement of the game law was left to the largely understaffed federal marshals. In addition, the law failed to authorize any supplement to federal enforcement through the use of locally appointed game wardens.²⁰ As a result, fish and animal populations were depleted to the detriment of local native populations.

Emmons recommended the “establishment of hatcheries . . . under government control” to improve salmon stocks for the benefit of Natives, as well as non-Natives.²¹ He stressed the importance of fish to the Native people and reminded Congress that “salmon is the life of the native people of Alaska.”²² He warned that “until they [Alaska Natives] have advanced beyond the hunter and fisher stage and have become self-supporting in modern industries they could not exist without this source of supply.”²³ As was typical during this time period, Emmons’ report contained the paternalistic language commonly used to describe indigenous peoples. More importantly, however, he recognized the cultural disruption taking place in Alaska, and the growing disparity among Native groups resulting from the influx of white settlers and the introduction of a cash economy. Emmons concluded:

²⁰ Cameron Jenks, *The Biological Survey: Its History, Activities and Organization* (Baltimore: John Hopkins Press, 1929), 112.

²¹ Emmons, “Conditions and Needs,” 19.

²² *Ibid.*

²³ *Ibid.*

Their country is being overrun; their natural food supply, never overabundant in this north land, is being taken from them; the large game is being slaughtered and driven to a distance, and the waters depleted of fish All of these conditions they are of themselves helpless to meet. Grownup children, in their ignorance and simplicity they look with wonder on the coming of the white man, and his methods of business and means of living they are wholly unable to comprehend.²⁴

Addressing the entire report, Roosevelt stated to Congress: “It seems to me that our honor as a nation is involved in seeing that these needs are met.”²⁵

In many respects, Emmons advocated for Native rights. He recognized the threat against Alaska Native groups and supported their protection and prosperity. Nevertheless, he reflected mainstream American views in foreseeing a future wherein all Alaska Natives would eventually assimilate into the increasingly dominant non-Native culture through conscious disassociation from their “primitive” way of life. Despite Emmons’ and others’ expectations that Alaska Natives would “advance” beyond the so-called “hunter and fisher stage.”²⁶

2.2 Federal Trust Responsibility

Alaska Natives and American Indians maintain a special relationship with the United States government. The Federal Trust Responsibility (FTR), a fiduciary relationship, legally

²⁴ Ibid., 2.

²⁵ Ibid., 1.

²⁶ Ibid., 19.

obligates the government to protect and accommodate “tribal treaty rights, lands, assets, and resources”²⁷ of Native American tribes. The FTR followed previously broken promises within treaties and was intended to ensure that the U.S. Government upheld its duties and obligations to American Indians. According to the 1977 Senate report of the American Indian Policy Review Commission: “The purpose behind the trust doctrine is and always has been to ensure the survival and welfare of Indian tribes and people. This includes an obligation to provide those services required to protect and enhance tribal lands, resources, and self-government.”²⁸

Chief Justice John Marshall first expressed the meaning of the FTR in *Cherokee Nation vs. Georgia* (1831). In what would be one of the most defining moments in the history of Native Americans (and eventually Alaska Natives), the federal government defined its relationship with tribes and imposed its own definition of tribal sovereignty for all indigenous people living within the boundaries of the United States, past, present and future.²⁹

The court defined the federal government’s relationship with Native American tribes, and reiterated that it is an exclusive association, unlike any other, based on mutual respect, understanding, and obligation. At the time, Indian Nations were considered wards of the state or “domestic dependent nations.” Their interests, rights, and resources fell under the direct

²⁷ *Cherokee Nation v. Georgia*, 30 U.S. 1 (1831) U.S. Supreme Court. *Cherokee Nation v. Georgia*, 30 U.S. 5 Pet. 1 1 (1831) March 18th, 1831.

²⁸ American Indian Policy Review Commission, *Final Report Submitted to Congress May 17, 1977, Volume One of Two Volumes*, Washington: U.S. Government Printing Office, 1977. 130.

²⁹ *Ibid.*

protection and responsibility of the federal government.³⁰ The purchase of Alaska in 1867 came four years prior to the close of the treaty making era. The U.S. government did not sign any treaties (after 1871) with Alaska Natives nor did it relocate Alaska Natives from their traditional lands. Nevertheless, Alaska Natives maintain the same trust relationship as other Native Americans with the federal government.

2.3 Alaska Statehood

Following a decades-long battle, Alaska became a state in 1959, with what is widely considered to be a model constitution. The relatively brief document generally avoids minute details within specific provisions, instead establishing broad principles that would guide future legislative bodies while leaving them significant flexibility. Drafters of the Alaska State constitution had a considerable advantage. Alaska became a state more than one and one-half centuries after the founding era, which allowed delegates to reference other state constitutions.³¹ A primary objective of the Constitutional Convention delegates was to gain control of natural resource management within the new state. Alaskans had been frustrated for decades by the federal government's management of its resources, which allowed profits from the harvesting of its renewable resources largely to flow Outside, or out of the territory.³²

³⁰ *Cherokee Nation v. State of Georgia*, 30 U.S. 1 (1831).

³¹ Gordon S. Harrison, *Alaska's Constitution: A Citizen's Guide, Fourth Edition* (Alaska Legislative Affairs Agency, 2002), 1-6.

³² Gerald A. McBeath and Thomas A. Morehouse, *Alaska Politics and Government*, (Lincoln: University of Nebraska Press, 1994), 124.

2.4 Article VIII – Natural Resources, and Selection of State Lands

In 1955, Constitutional Delegates called upon political scientist Vincent Ostrom to guide the drafting of Article VIII of the Alaska constitution, which addressed natural resources. They chose Ostrom, then an assistant professor of political science at the University of Oregon, owing to his proficiency in natural resource law, as well as his expertise in the implementation of natural resource policies. Ostrom was very familiar with the relationship between law, institutional development, and the subsequent administration of effective natural resource policy. His research interests included the management of common pool resources, namely water. He stressed the importance of developing policies to accommodate changing environmental and social conditions in ecologically diverse settings.³³ Alaska Constitutional Convention Secretary Thomas Stewart recognized the relevance of Ostrom's research to Alaska's anticipated takeover of natural resource management and therefore sought his guidance on Article VIII.³⁴

Knowing that the insight of individuals with direct knowledge of Alaska's ecology would be needed to craft Article VIII, Ostrom proposed gathering "a subcommittee composed of several professionals in law, engineering, mining, as well as fish and wildlife management."³⁵ He organized a subcommittee comprised of Burke Riley, field representative for the secretary of the Department of the Interior, who was deeply familiar with Alaska's resource problems; John

³³ Vincent Ostrom and Elinor Ostrom, "Legal and Political Conditions of Water Resource Development," *Land Economics* 48, no. 1 (1972): 1-14, doi:10.2307/3145634; Vincent Ostrom, "The Political Economy of Water Development," *American Economic Review* 52, no. 2, (May 1962).

³⁴ Barbara Allen and Donald Lutz, *The Alaska Constitution: Realizing the Theory of a Compound Republic*, presented at Vincent Ostrom Conference, 2006.

³⁵ Allen and Lutz, "Theory of a Compound Republic," 27.

Boswell, a mining engineer at one of the major mining companies located near Fairbanks; and B.D. Stewart, a geologist with extensive experience as part of the U.S. Geologic Survey in Alaska.³⁶ During a two week period, Ostrom and the committee produced two main ideas that the constitutional delegates used as the basis for Article VIII: sustainability and beneficial use.³⁷

Ostrom recognized Alaskans' diverse demographic makeup, the territory/state's ecological diversity, and the overall dependence on natural resources and varying use of said resources; however, he did not seek any consultation from Alaska Native subsistence users. Nevertheless, both Ostrom and the framers incorporated language that would accommodate future collective decision making among user groups. Delegates intended to protect Alaska Native subsistence needs through the "beneficial use" provisions in Section 4 of Article VIII, which states: "Fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the State shall be utilized, developed, and maintained on the sustained yield principle, subject to preferences among beneficial uses."³⁸

The Constitution stipulated that the resources must be managed based on conservation principles. Constitutional provisions regarding the environment are not unique to Alaska. Nearly every state constitution contains an environmental provision.³⁹ However, as Gordon Harrison

³⁶ Stewart's son Thomas was a member of the territorial legislature who served as secretary for the Constitutional Convention.

³⁷ Allen and Lutz, "Theory of a Compound Republic," 5.

³⁸ Harrison, *Alaska's Constitution*, 132.

³⁹ Barton H. Thompson, Jr., "Environmental Policy and State Constitutions: The Potential Role of Substantive Guidance," *Rutgers Law Journal*, 1996.

explains in his guide to Alaska's Constitution, the types of provisions included within other state constitutions were written prior to what many environmentalists consider to be the reemergence of "modern principles of conservation and resource policy-sustained yield and multiple use."⁴⁰ Although many states provide for the establishment of natural resource departments of forestry, wildlife, and fish, Alaska's constitution goes one step further by dictating how these resources should be managed and utilized to meet the principles of sustained yield: "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the state land consistent with multiple use."⁴¹ In other words, the harvest of any renewable biological natural resource "shall not exceed the annual regeneration of that resource," Harrison explains.⁴² In addition to the requirements regarding the harvest of biological resources, Section 4 of Article VIII states that the principles are "subject to preferences among beneficial uses." According to Harrison, constitutional delegates recognized that "not all demands made upon resources can be satisfied, and that prudent resource management based on modern conservation principles necessarily involves prioritizing competing uses."⁴³ Constitutional delegates clearly anticipated future instances of user conflict.

⁴⁰ Harrison, *Alaska's Constitution*, 127.

⁴¹ Harrison, *Alaska's Constitution*, 132.

⁴² *Ibid.*

⁴³ *Ibid.*

Alaska statutes provide more detailed parameters for the management of its resources.

Alaska Statute 38.04.910 defines *multiple use* as:

The management of state land and its various resource values so that it is used in the combination that will best meet the present and future needs of the people of Alaska, making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions.⁴⁴

Multiple use includes “the use of some land for less than all of the resources and a combination of balanced and diverse resource uses that takes into account the short term and long term needs of present and future generations,” which includes wildlife resources.⁴⁵ *Multiple use* takes into account the proper management of *all* natural resources to include non-renewable resources such as minerals. Essentially, it is the use of appropriate administrative tactics to ensure that both the present and future resource needs of Alaskans are met.

The constitution’s *Common use* provision, on the other hand, concerns renewable resources only. This particular provision is one of three equal access clauses contained within Article VIII. Section 3 of Article VIII, the common use provision states, “wherever occurring in their natural state, fish, wildlife and waters are reserved to the people for common use.” The

⁴⁴ Alaska Statute Title 38. Public Land §38.04.910.

⁴⁵ Ibid.

resources are to be managed by the state for the benefit of all Alaskans “rather than for the benefit of the government or of specific individuals,”⁴⁶ Harrison explains.

Section 15, “No exclusive Right of Fishery,” further supports the concept of *common use*, but in the context of aquatic renewable resources specifically.⁴⁷ This section reiterates that no “special privilege” be granted by the State of Alaska to any individual or group of individuals regarding their harvest and use of these resources.⁴⁸ However, this clause does include the caveat that the State maintains the authority to “limit entry” into any one fishery “for the purposes of resource conservation.”⁴⁹ In other words, the State is authorized to prioritize user groups’ participation in the fishery such as commercial and subsistence interests, for example. In times of conservation, as is now the case on the Kuskokwim River, and coupled with the State subsistence priority, the State is obligated to prioritize subsistence users.⁵⁰

A third clause reiterates the non-exclusive nature of these sectional provisions. Section 17 of Article VIII states that “Laws and regulations governing. . . natural resources shall apply equally to all persons similarly situated with reference to the subject matter and purpose to be served by the law or regulation.”⁵¹ As Harrison explains, in the case of a fishery, the allocation of

⁴⁶ Harrison, *Alaska’s Constitution*, 130.

⁴⁷ Harrison, *Alaska’s Constitution*, 139.

⁴⁸ *Ibid.*

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*

⁵¹ *Ibid.*, 141.

opportunities to harvest a particular resource in a particular area is subject to the rules and regulations created for that particular area.⁵²

As Harrison notes, the equal accesses clauses were designed to “guarantee that no one should have privileged or monopolistic access to any of Alaska’s natural resources.”⁵³

The state’s constitutional renewable resources provisions, namely fish and game, sought to ensure that they remained renewable and that their usage remained non-exclusive. Considering that the primary objective of constitutional delegates was to ensure that present as well as future generations would benefit from these resources, it was essential that the provisions addressed user equality. This provision led to federal intervention, however, owing to the federal government’s obligation to protect Native American interests, including those of Alaska Natives.

The transition from territory to state resulted in dramatic changes for Alaskans. Not only did the state finally gain control of fish and game resources, the Statehood Act provided that the state could select more than 100 million acres of land to be transferred from federal to state ownership. The Statehood Act recognized Indigenous Alaskans’ rights to lands they had occupied and used since time immemorial, providing as follows in Section IV:

As a compact with the United States said State and its people do agree and declare that they forever disclaim all right and title to any lands or other property not granted or confirmed to the State or its political subdivisions by or under the authority of this Act,

⁵² Ibid.

⁵³ Ibid.

the right or title to which is held by the United States or is subject to disposition by the United States, and to any lands or other property, (including fishing rights), the right or title to which may be held by any Indians, Eskimos, or Aleuts (hereinafter called natives) or is held by the United States in trust for said natives; that all such lands or other property, belonging to the United States or which may belong to said natives, shall be and remain under the absolute jurisdiction and control of the United States until disposed of under its authority.⁵⁴

As the State began to select lands in accordance with the Statehood Act, before Alaska Natives' claims to their traditional lands had been settled, Alaska Natives became increasingly concerned. As one Alaska Native later described the years following statehood: "They took control over our land and its resources, and they shoved us into a life totally unknown to us, expecting us to conform to it regardless of our knowledge . . . I would like to take back what was taken from us as a people."⁵⁵

Many rural subsistence users still share these sentiments. For several decades following statehood, land use and subsistence concerns would spawn monumental legal battles. Eventually Alaska Natives' land claims would be settled. Shortly thereafter, the U.S. Congress and the Alaska State Legislature would pass legislation that protected rural subsistence users. However, this short-lived "harmony" would be interrupted by subsequent legislation, the result of which

⁵⁴ Alaska Statehood Act, 85-508, 72 Stat. 339 Public Law 85-508, 85Th Congress, H. R. 7999, 1958, accessed June 2014, https://www.akleg.gov/basis/get_documents.asp?session=29&docid=29890.

⁵⁵ Thomas Berger, *Village Journey: The Report of the Alaska Native Review Commission*, 1st ed. (New York: Hill and Wang, 1986), 35.

triggered a constitutional crisis. In its wake emerged a system “dual management” that marginalized subsistence users, trivialized subsistence rights protection, and radically changed the system of fish and game management in Alaska.

2.5 Alaska Native Claims Settlement Act

With 229 tribes, Alaska is home to over 40 percent of all federally recognized native tribes in the United States. However, with the exception of the Tsimshian community of Metlakatla on Annette Island in southeast Alaska, Alaska contains no Indian Country.⁵⁶ The Alaska Native Claims Settlement Act (ANCSA) of 1971 resolved Alaska Natives’ claims of aboriginal title to all of Alaska, with the transfer of about 10 percent of the state to Native ownership.⁵⁷ With ANCSA’s passage, 44 million acres of land within the state and nearly \$1 billion transferred to twelve newly created regional and over 200 village corporations,⁵⁸ which would manage these assets for Native shareholders. The federal government retained approximately 60 percent of the land in Alaska, while the State took ownership of nearly 30 percent. In addition to extinguishing aboriginal title, ANCSA extinguished aboriginal hunting and fishing rights in the state.⁵⁹

Canadian scholar Marc G. Stevenson notes that there are two types of land claims agreements that are typically used between tribes and governments: 1) multi-stakeholder

⁵⁶ U.S. Department of the Interior, "Alaska Region," Bureau of Indian Affairs, accessed February 2015, <https://www.bia.gov/regional-offices/alaska>.

⁵⁷ Paul Ongtooguk, "The Annotated ANCSA: How the Alaska Native Claims Settlement Act Came About," Alaskool.org, accessed July 2015, <http://www.alaskool.org/projects/ancsa/annancsa.htm>.

⁵⁸ A thirteenth corporation was later established to represent Alaska Natives who lives outside of Alaska, but who had ties to rural villages in Alaska.

⁵⁹ Ongtooguk, "The Annotated ANCSA".

agreements and 2) crises-based agreements. Stevenson argues that land claims agreements often result from an economic catalyst, and that “natural resources development often provides the impetus for the federal government to negotiate comprehensive land claim settlements with Aboriginal peoples.”⁶⁰ This was the case in Alaska; the discovery of oil at Prudhoe Bay on the North Slope of the Brooks Range provided the impetus for land claims negotiations. Stevenson explains that land claims agreements typically include an exchange of money for the ceded land, investment opportunities in the resource (if any) being developed, and legal title to a specified amount of land. Stevenson points out that these types of agreements oftentimes also provide for some authority to tribes in fish and wildlife management.⁶¹

ANCSA, which can be seen as a textbook land claims agreement, has had far reaching implications for Alaska Natives. The primary impetus for the creation of this legislation was to expedite the construction of the Trans-Alaska Pipeline System (TAPS), which would transport the oil produced at Prudhoe to Valdez in Prince William Sound within the Gulf of Alaska, from where it could be shipped to world markets. In addition to resolving Alaska Native land claims, the act sought to assimilate Alaska Native peoples into the mainstream American economy through the corporate model of asset management.⁶²

⁶⁰ Marc Stevenson, "Decolonizing Co-Management in Northern Canada," *Cultural Survival Quarterly Magazine* (2004), accessed November 2016, <http://www.culturalsurvival.org/publications/cultural-survival-quarterly/canada/decolonizing-co-management-northern-canada>.

⁶¹ Ibid.

⁶² "Alaska Native Claims Settlement Act," [akhistorycourse.org](http://www.akhistorycourse.org/modern-alaska/alaska-native-claims-settlement-act), accessed March 2015, <http://www.akhistorycourse.org/modern-alaska/alaska-native-claims-settlement-act>.

The extinguishment of aboriginal hunting and fishing rights through ANCSA made the protection of Native subsistence rights, all the more critical. ANCSA did not address subsistence issues. In 1978 the Alaska legislature first identified subsistence as the foremost priority in the harvesting of Alaska's fish and wildlife, defining subsistence as "customary and traditional uses" of the resources, while noting their importance in long-established Alaskan lifeways, but did not define *subsistence users*.⁶³ Recognizing Alaska Natives' vulnerability, and fundamentally driven by the government's "moral obligations of the highest responsibility and trust" towards Alaska Natives,⁶⁴ Congress entrusted the protection of traditional Alaska Native subsistence hunting and fishing rights to the State of Alaska and the (federal) Secretary of the Interior.⁶⁵

2.6 Alaska National Interest Lands Conservation Act

In 1980, the federal government acted to protect Native subsistence rights within the comprehensive Alaska National Interest Lands Conservation Act (ANILCA). ANILCA created a rural subsistence priority (Section 804) and mandated that Alaska Natives would assume a "meaningful role" in fish and wildlife management on federal lands and waters in Alaska.⁶⁶ This represented the Federal Trust Responsibility (FTR) in practice. In addition to Section 801, Sections 809 and 812 dealt directly with issues pertaining to Alaska Native subsistence user's role in management.

⁶³ "Subsistence Use in Alaska," Alaska Department of Fish and Game.

⁶⁴ *Seminole Nation v. United States*, 316 U.S. 286 (1942).

⁶⁵ McBeath and Morehouse, *Alaska Politics and Government*, 112.

⁶⁶ Alaska National Interest Lands Conservation Act (ANILCA), "Title VIII-Subsistence Management and Use" PUBLIC LAW 96-487—DEC. 2, 1980 94 STAT. 2371 Public Law 96-487, 96th Congress. 589.

The former granted the Department of the Interior the authority to enter into cooperative agreements with Native groups in the context of fish and game management,⁶⁷ and the latter stated that the Department of the Interior and its acting sub agencies, i.e. the U.S. Fish and Wildlife Service (USFWS), “shall. . . seek data from, consult with and make use of, the special knowledge of local residents engaged in subsistence uses. . . .”⁶⁸

Although both state and federal institutions utilized the same “customary and traditional uses” criterion for the basis of their legislation, ANILCA’s creation of a rural subsistence priority clearly defined subsistence users where the 1978 State subsistence law had not.

2.7 Emergence of Dual Management

In an effort to comply with ANILCA’s rural subsistence priority mandate, and to maintain state fish and game management authority on federal lands, the State Boards of Fisheries (BOF) and Board of Game (BOG) created a rural subsistence priority mandate of its own in 1982. In addition, the mandate delineated rural and non-rural (subsistence and non-subsistence) areas throughout the state.⁶⁹

In 1989, in the case *McDowell v. Alaska*, four Alaskan hunters from non-rural parts of the state challenged the state’s rural priority law. The defendants argued that the rural subsistence

⁶⁷ ANILCA Title VIII Section 809, “Cooperative Agreements,” 596.

⁶⁸ ANILCA Title VIII Section 812, “Research,” 597.

⁶⁹ U.S. Department of the Interior, “Overview and History of Subsistence Management in Alaska”, accessed August 2015, <https://www.doi.gov/subsistence/library/history>.

priority violated the Alaska State Constitution, namely its equal access clauses found in Article VIII (Sections 3, 15, 17). Furthermore, the defendants argued that the urban and rural area determinations were unfair. The defendants contended that as lifelong subsistence hunters and fishers, they should be afforded the same opportunities as subsistence users in rural parts of the state are afforded and should not be precluded from participating in said opportunities solely based on their residency. The defendants argued that subsistence rights should be based upon needs and traditional usage, as opposed to residency. The Alaska Supreme Court ruled in their favor based on the fact that although the constitution provides that resources could be allocated to certain groups of users in order to protect the resource, this allocation could not be based on residency.⁷⁰ In other words, “exclusive or special privileges” for any one group “to take fish and wildlife are prohibited.”⁷¹

Alaska found itself in a constitutional crisis because State agencies could not comply with ANILCA without violating Alaska’s constitution. Therefore, one year after the *McDowell* ruling, Federal agencies took over all management authority on Federal public lands and non-navigable waters within Alaska. In 1995, management jurisdiction expanded to include “all navigable waters. . . such as waters on or next to wildlife refuges. . . .”⁷²

⁷⁰ *McDowell v. State*, 785 P.2d 1 (Supreme Court of Alaska. 1989).

⁷¹ Harrison, *Alaska’s Constitution*, 130.

⁷² U.S. Department of the Interior, “Overview and History of Subsistence Management.”

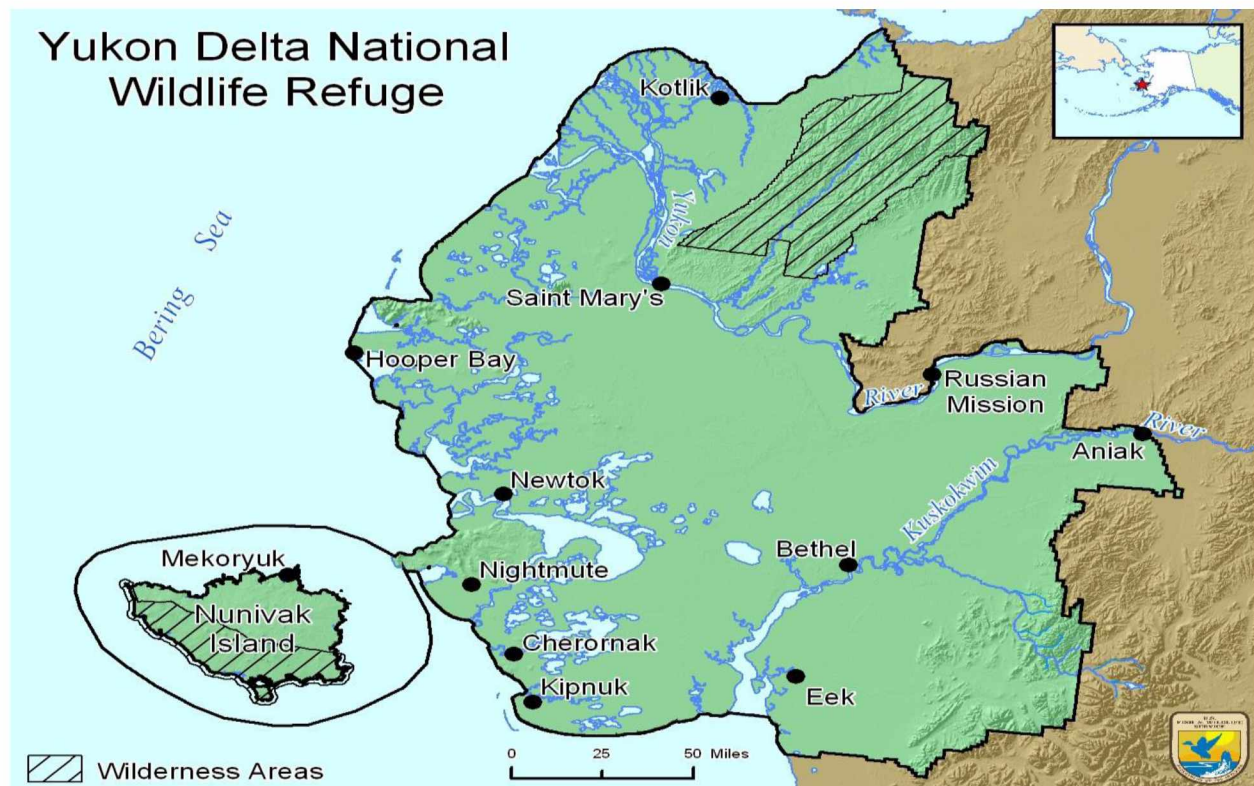


FIGURE 5: FEDERAL JURISDICTION ON KUSKOKWIM RIVER. PHOTO COURTESY OF U.S. FISH AND WILDLIFE SERVICE [HTTPS://DIGITALMEDIA.FWS.GOV/](https://digitalmedia.fws.gov/)

The implications of these decisions remain highly contentious. This is partly based on the fact that ANILCA protects rural subsistence users rather than Alaska Natives, *per se*, and partly owing to dissatisfaction that Alaska Native voices are not sufficiently included in management decisions, despite federal mandates. Furthermore, dual management created a checkerboard of complex and oftentimes confusing jurisdictional boundaries, rules, and regulations.

2.8 Alaska Federation of Natives' perspective on Dual Management

Dissatisfaction continues to roil in western Alaska and other areas of the state. A proclamation to the audience at the 2012 Alaska Federation of Natives (AFN) Convention declared that the dual management system has failed to provide adequate protection to Native

subsistence interests. In addition, it argued that subsistence harvests had taken a backseat to competing interests, presumably sport and commercial groups, and that individuals had been treated unjustly for embracing their culture of which subsistence is an integral part. The declaration demanded that Congress fulfill its promise explicitly stated in ANILCA: for Alaska Natives to have a meaningful role in fish and wildlife management. The statement concludes: “There is no justification for management that fails to include Alaska Natives as at least equal partners.”⁷³

The proclamation appealed to the federal government and rejected the notion of Alaska Native leaders negotiating with state agencies. The state Supreme Court’s 1989 *McDowell* decision, which declared the federal rural priority law unconstitutional, essentially confirmed to Alaska Native leaders that the state would never relinquish any management authority to Alaska Native subsistence users. The proclamation included two primary goals set forth by the First Peoples of Alaska:

- 1) Full and lasting federal protections for [the] hunting, fishing and gathering way of life, and
- 2) A co-equal role in managing the fish, wildlife and other renewable resources that [Alaska Natives] rely upon for . . . economic and cultural existence.⁷⁴

⁷³ “First Peoples of Alaska Proclamation: To Achieve Subsistence Rights and Protection of Native Cultures,” (repr., Alaska Federation of Natives Convention, 2012), accessed September 2016. <http://www.nativefederation.org/wp-content/uploads/.../Subsistence-Proclamation-2012.pdf>.

⁷⁴ Ibid.

The first goal essentially asks the federal government to exercise its FTR with Alaska Natives, demanding that the protection be both comprehensive and permanent. The second goal expresses a desire for direct involvement in management, clarifying that the rightful ability to do so is critical to maintaining Alaska Native culture.

Native representatives at the convention directed particular attention to Title VIII, Section 809 of ANILCA, which states that: "The Secretary may enter into cooperative agreements or otherwise cooperate with other Federal agencies, the State, Native Corporations, other appropriate persons and organizations, and acting through the Secretary of State, other nations to effectuate the purposes and policies of this title."⁷⁵

Alaska Native representatives acknowledged that ultimately the federal government is the only institution acting in Alaska that can and must protect Alaska Native subsistence interests. Although state officials have expressed a desire and willingness to collaborate with Alaska Native subsistence users in the management of fish and wildlife, they have also made it clear that they will not cede any management authority to them, as state management agencies are bound by the state constitution's equal access provisions.⁷⁶ As early as the late nineteenth century, federal officials had recognized the critical need for protection -- aboriginal rights, socioeconomic rights- of Alaska Natives, and that it was the responsibility of the Federal Government to ensure this protection.

⁷⁵ ANILCA Title VIII Section 809.

⁷⁶ Sam Cotten, " Co-Management; Subsistence Fishery Disasters," (Presentation, repr., Tribal Leader's Forum Alaska Issues Panel, Alaska Federation of Natives Tribal Leader's Forum, 2015).

2.9 Conclusion

The State of Alaska does not maintain the same special relationship with Alaska Natives as the Federal Government. The State Constitution protected the equal rights of all Alaska residents, which included Alaska Natives. Although there was no expressed intent to deny a special relationship between the State and Alaska Natives, the Constitution did not provide special protections for Alaska Natives. These decisions may have been foregone conclusions, given that just 2 percent of the entire Constitutional Delegation with one representative (of 55 total) was Alaska Native. The provisions in Article VIII would invariably impact Alaska Natives' livelihoods, yet despite these implications, no Alaska Natives were sought for consultation during the creation of this article. This would set the tone for the course of action in how the state and federal government dealt with Alaska Natives for the next several years.

The language provided in Article VIII made it clear that all Alaskans, Native and Non-Native alike, were on equal footing and would be afforded equal opportunities and access in terms of their harvest and use of fish and game resources. Following the Alaska Native Claims Settlement Act, the federal government, based on the Federal Trust Responsibility, sought to fulfill its own obligations to Alaska Natives by creating a rural subsistence priority through ANILCA. The state, reeling from decades of territorial mismanagement and in fear of the expansion of federal oversight and threats to state sovereignty, acquiesced to federal demands and became compliant with ANILCA's mandate. However, the *McDowell* decision put an end to that compliance, and the complex dual management system followed.

The dual management system exists today on the Kuskokwim River and is oftentimes a point of, or rather source of, contention among salmon users. Kuskokwim River salmon are a common pool resource, the sustainability of which, is dependent on management agencies' effectiveness and the collective interest and self-restraint of its users. Users are actively seeking avenues and opportunities to effect real change in not only the management process, but the very structure of the management system. Many users recognize the value of organization, and in some cases have come together to strengthen their collective agenda in the hopes of changing the status quo under the current management structure.

Chapter 3

Organizational Theory

Researchers from several disciplines have proposed theories about why human beings organize. The study of organizational theory is not exclusive to sociologists; political scientists, anthropologists, economists, and biologists have also contributed to the extensive literature on this topic. Organizations share several common traits, as well as some distinct differences.

In the context of subsistence salmon users on the Kuskokwim River, users themselves are in an advantageous position to come together simply because they maintain the same objectives: to create a sustainable subsistence salmon fishery and to garner more influence in managing the fishery. These collective goals provide the framework that local organizations on the Kuskokwim can build upon in their attempts to effect change in the existing management system.

Shafritz and Ott define an organization as a “social unit with some particular purposes.”¹ Etzioni defines organizations along the same lines, adding that they are “deliberately constructed”² in order to fulfill particular purposes. Arguably, to organize is an intrinsically human characteristic. According to Etzioni: “We are born in organizations, educated by

¹ Jay M. Shafritz, J. Steven Ott, *Classics of Organization Theory*, 5th ed. (Boston, MA: Wadsworth, Cengage Learning, 2000), 1.

² Amatai Etzioni, *Modern Organizations*, (Englewood Cliffs, NJ: Prentice Hall, 1969), 3.

organizations, and most of us spend much of our lives working for organizations . . . Most of us will die in an organization.”³

The most fundamental purpose of organizing, as Hall explains, is to “to get things done.”⁴ All organizational theories recognize this basic function. Challenges at an individual level can often be overcome by cooperation with other individuals. Therefore, to achieve change, individuals often choose to organize and come together into larger groups. The desire to get things done does not necessarily require that a formal organization be created, as Ouchi points out. For example, farmers looking to collaborate on a particular project typically form a less formal organization such as a cooperative, with an equitable sharing of power. Informal organizations are typically simple-structured and flexible grassroots institutions that act to perpetuate social and cultural values. Although these types of groups (cooperatives) still exist today, in response to societal changes, organizations have evolved into increasingly complex groups with much higher levels of organizational hierarchy.⁵ Regardless of the type of organization, the structure is composed of two or more individual parts, presumably with all parts aiming to serve the same purpose.

Hall explains that any organization’s structure typically serves three functions. The first function assumes that the efficiency of a group depends on its structural design. Secondly, the

³ Ibid., 1.

⁴ Richard Hall, *Organizations: Structures, Processes, And Outcomes*, 8th edition, (NJ: Prentice Hall, 2002),

⁵ William Ouchi, " Markets, Bureaucracies, And Clans," in *The Sociology of Organizations: An Anthology of Contemporary Theory and Research*, ed. Amy S. Wharton, (Los Angeles: Roxbury Publishing Company, 2007), 13-15.

purpose of the organization dictates the structural design which in turn aims to generate efficiency. Finally, organizational structure provides the setting for organizational management, in which the action takes place within an organization.⁶ At face value, these are relatively simple functions that maintain a symbiotic relationship with each other, for instance, serving to reduce divisions within the group that may hinder the achievement of goals. Both formal (government, corporations) and informal (local grassroots groups, cooperatives) organizations maintain some sort of structure. As mentioned above, the structure of an organization depends largely on its purpose. The following discussion will focus on two types of organizations most relevant to my research.

3.1 Formal and Informal Organizations

Etzioni states that organizations have become more and more complex,⁷ since earlier times when people organized largely as a means of survival.⁸ Additionally, “modern organization is generally more efficient than the ancient or medieval” form of organization (and those organizations themselves), because organizations have evolved to meet the needs of society.⁹ Etzioni distinguishes organizations from social groupings. Organizations include churches, armies,

⁶ Hall, *Organizations*, 48.

⁷ Etzioni, *Modern Organizations*, 1-2.

⁸ *Ibid.*, 1.

⁹ *Ibid.*, 2.

and corporations (formal), while social groupings include family units, tribes, or ethnic groups (informal).¹⁰

According to Hall, ultimately, “organizations have the capacity to do great good or great evil.”¹¹ As history has shown us, the collective will of an organization may be overshadowed by influential individuals. Furthermore, the purpose of a particular organization may become sidelined as structural complexity increases. Etzioni raises an additional dilemma among organizations: “how to construct human groupings that are as rational, or efficient, as possible, and at the same time produce a minimum of undesirable side effects and a maximum of satisfaction.”¹²

Grouping like-minded individuals who share a common goal may be the easiest step in forming an organization. Once the organization has formed, shifting dynamics can lead to negative outcomes; thus, Etzioni aptly points out that organizations must work to minimize such negative outcomes.

Sociologist Max Weber defined formal organizations, or “corporate groups,” as a “social relationship which is either closed or limits the admission of outsiders by rules.” In addition, formal organizations are typically headed by a “chief or ‘head’ and also an administrative staff.” The organizational structure of corporate groups is much more rigid than that of other social

¹⁰ Ibid., 3.

¹¹ Hall, *Organizations*, 3.

¹² Etzioni, *Modern Organizations*, 2.

organizations.¹³ According to Weber, there is a division of labor among members of corporate groups, and there are boundaries in corporate groups, as well as a certain degree of exclusivity; not any individual can be a part of the group. Policies and procedures are imposed upon group members and their interactions with other individuals in the group oftentimes directed by their superiors. By this definition, the Alaska Department of Fish and Game (ADF&G) and the United States Fish and Wildlife Service (USFWS) are two corporate groups. Each agency is a highly complex structure, bound by state and federal laws, respectively. In order to be a part of either group, an individual must have certain credentials and must compete with other individuals. Members must adhere to a chain of command, and they must adhere to formal policies and procedures. Weber stressed that the interactions taking place within formal organizations are “associative” as opposed to “communal,” the latter describing social interactions among all other types of social groups.¹⁴ Within a formal organization, associative interactions among coworkers include collaboration on projects and sharing ideas and technical information with one another. All of the input from the workers presumably supports identified objectives. The process itself is impersonal, in that it singularly aims to further an objective, with good intention. An organization’s goals could become compromised by veering away from stated purposes. These quite rigid traits of formal organizations raise questions about how well such organizations can interact with informal organizations.

¹³ Hall, *Organizations*, 28.

¹⁴ *Ibid.*

One type of informal organization is voluntary organizations. Like formal organizations, voluntary organizations consist of groups of individuals with common goals. Members' interests could be economic or non-economic. In voluntary organizations, members do not typically "derive their livelihood from the organization's activities."¹⁵ This is not to say, however, that the livelihoods of an informal organization's members are free from the effects (positive and negative) of an organization's actions.

Members of voluntary organizations offer their time and energy without the prospect of monetary compensation. Social scientist Hamidreza Mirsafian and colleagues focus on the intangible benefits of volunteering: "In almost all modern societies, the most basic of all values is people helping people and, in the process, helping themselves. Volunteering helps to build more cohesive communities through fostering greater trust between citizens and by developing norms of solidarity and reciprocity which are essential to stable communities."¹⁶ The authors describe three common aspects of volunteerism. The first and foremost, is that there are no compulsory obligations to involvement. Secondly, volunteering is typically unpaid activity. Finally, volunteering should be mutually beneficial for the individual volunteers and the organization.¹⁷

¹⁵ Hall, *Organizations*, 43.

¹⁶ Hamidreza Mirsafian and Azadeh Mohamadidejad, *Sport Volunteerism: A Study on Volunteering Motivations in University Students*, ebook (repr., Budapest: Faculty of Physical Education and Sport Sciences, Semmelweis University, 2012). *6Th INSHS International Christmas Sport Scientific Conference* (repr., International Network of Sport and Health Science, 2011), S74.

¹⁷ Ibid.

Taking a closer look at the intangible benefits of volunteering, organizational theorists Knoke and Prensky describe three forms of incentives that contribute to volunteer motivation: utilitarian, affective, and normative. Utilitarian incentives include the acquisition of knowledge and skills gained through membership. Affective incentives focus on the positive social benefits derived through social interactions, such as acquiring “prestige, respect, esteem, friendship and [a] sense of connectedness.” Normative incentives are more emotion-oriented and describe the emotional rewards of sharing and helping other individuals or groups.¹⁸ Considering all three forms of incentives, arguably, volunteering is largely driven by self-fulfillment goals. This is not to say that volunteers have no concern for either fellow members or the group’s cause or are solely driven by self-fulfillment. Rather, the point stresses individuals’ desire to feel better about themselves, which largely drives volunteerism. As will be shown below, such fundamental aspects of individual interest complicate the management of common pool resources.

3.2 Common Pool Resources and Organizations

In an article entitled “Can Selfishness Save the Environment?” authors Ridley and Low note that “human beings are motivated by self-interest rather than collective interests,”¹⁹ and argue that the failure of the masses to recognize this inherently human characteristic has and will continue to hinder the environmental movement. Ridley and Low cite two examples involving common pool resources to illustrate their point. In their first example, user self-interest triggered

¹⁸ Ibid., S75.

¹⁹ Matt Ridley and Bobbi Low, “Can Selfishness Save The Environment?” *The Atlantic*, September 1993, accessed July 2015, <https://www.theatlantic.com/magazine/archive/1993/09/can-selfishness-save-the-environment/305865/>, 76-81.

the depletion of a “limited and shared” resource, in this case water; users practiced no self-restraint. The authors cite a second case involving the same limited and shared resource, when users practiced self-restraint.

In both cases, users were motivated by their own self-interests. What differentiated the two cases, however, was the users’ thought processes. In the first example, self-interest and gratification obscured rational thought, leading individuals to ignore the consequences, which in turn created permanent problems for every user. In the second example, users exercised forethought. The villagers recognized the consequences associated with unbound self-gratification. Although the authors’ argument paints a rather grim outlook on humanity, they do offer hope. Ridley and Low argue that despite self-interest being a primary motivator for human actions, the idea of satisfying self-interest can still be compatible with satisfying collective interests, as illustrated by the second example. In other words, group members must have the ability to recognize, control, and maintain their own self-interests at a level that is harmonious with those of fellow members of the organization.²⁰

Garret Hardin’s “Tragedy of the Commons,” offered two solutions to common pool resource issues: privatization and regulation. By privatizing a communally used resource, users (who also act as owners) maintain control over said resource and are incentivized via benefits derived through their own responsible actions. The resource becomes their property, thereby altering their relationship with said resource. Owners must consider both the costs and the

²⁰ Ibid.

benefits associated with the resource, whereas a common resource user may only be concerned with the benefits.²¹

With regulation, an outside authority objectively manages the resource. In so doing, the regulatory body takes on all responsibilities: allotment of the resource, security of the resource, and enforcement of other rules associated with resource usage.²²

Arguably, state and federal agencies privatized Kuskokwim River salmon by acting as regulators. While Hardin differentiates regulation from privatization, both solutions result in the controlling parties having a vested interest in the resource. Management agencies certainly have an interest in the sustainability of the resource. The agencies must consider the costs and benefits as they relate to the users and the agencies themselves. On the Kuskokwim, the benefits associated with responsible fisheries management are twofold: 1) creating a sustainable fishery and 2) fulfilling state and federally mandated subsistence priorities. The direct costs in managing the fishery are numerous. Monetary costs include employee salaries, fisheries monitoring equipment, and community outreach programs. Intangible costs include potential consequences such as waning user morale and poor public relations. In the case of the Kuskokwim, some fishermen do not believe that agencies are managing the fishery in accordance with local users' best interests.²³

²¹ Garrett Hardin, "The Tragedy of The Commons," *Science, New Series* 162, no. 3859 (1968): 1243-1248.

²² Ibid.

²³ Kevin A. Bartley, "They Don't Know How We Live: Understanding Collaborative Management in Western Alaska" (Master's thesis, University of Alaska-Anchorage, 2014); Chris McDevitt Field Notes, ADFG Lower and Middle Kuskokwim River In-Season Monitoring Project June-July 2015, 2016, 2017.

Regulation has become the preferred method of managing common pool resources. Government regulation by no means resolves many of the challenges inherent in managing common pool resources, however. In one example, Ridley and Low illustrate the negative costs associated with both privatization and regulation, when integrity issues among formal organizations undermined an already damaged system: “In the Indian subcontinent communally exploited forests and grasslands were nationalized and put under the charge of centralized bureaucracies far away. This might have worked if governments were competent and incorruptible and had bottomless resources to police their charges. But it made problems worse, because the forest was no longer the possession of the local village even collectively. So, the grazing, poaching, and logging intensified—the cost had been externalized not just to the rest of the village but to the entire country.”²⁴

Regulation itself is not a foreign concept to indigenous peoples. Alaska Natives have been self-regulating their resource usage for thousands of years, to conserve the resources.²⁵ The concept of privatization and individual ownership, however, conflicts with Alaska Native cultural values.²⁶ From an Alaska Native perspective, government regulation and privatization can equally frustrate their use of the resources on which they depend. Regulating a resource allots opportunities to obtain said resource, the allotment of which becomes even more restricted

²⁴ Ridley and Low, “Selfishness.”

²⁵ Chris McDevitt field notes, “Patterns and trends with Chinook salmon on the Yukon Delta,” August 2015.

²⁶ Berger, *Village Journey*, 22.

during times of conservation. Government regulators often struggle to explain regulations to users without implying that management agencies own the resource itself. For instance, management agencies have the authority to tell a group of users when they can and cannot fish, what gear they must use and what gear is prohibited, how many fish they are allowed to take (in some cases), and which species are off-limits to harvests; in short, acting as though they own the resources themselves. Users must comply with these regulations. In practice, state and federal agencies' control of opportunities to harvest resources controls the *users* of the resource. *That is, fish and game management actually manage the users of fish and game, rather than the resources themselves.* Meyer and Rowan's statement on the purpose of modern organizations, then, is quite apropos: "Prevailing theories assume that the coordination and control of activity are the critical dimensions on which formal organizations have succeeded in the modern world."²⁷

State and federal management agencies are such formal organizations. As noted, both the ADFG and the USFWS exert absolute control over the salmon fishery on the Kuskokwim. As to whether said agencies succeed in their aims on the Kuskokwim River, depends on whom one asks. Both agencies control the policymaking process. State and federal mandates dictate that the agencies remain in place, regardless of their effectiveness. The agencies' missions mandate

²⁷ Wharton, *Sociology of Organizations*, 73.

decisions for the betterment of the fishery, but many argue that decisions have not always served the fisheries' interests.²⁸

Meyer and Rowan note that the "rise of the state and the expansion of collective jurisdiction are often thought to result in domesticated organizations subject to high levels of goal displacement."²⁹ The primary goal for subsistence salmon fishers all along the Kuskokwim is to fulfill their families' needs, and oftentimes the needs of several other families. The primary goal remains the same along the various portions of the river (lower, middle, and upper), but regional differences such as population size, resource availability, and differing management jurisdictional responsibilities, promotes inter-river conflict among users. Management agencies essentially dictate the users' goals, regardless of regional preferences and differences among users, which could be viewed as displacing user interests. These circumstances illustrate Meyer and Rowan's theory that local organizations do not necessarily "adapt to their institutional contexts" but rather "play active roles in shaping those contexts."³⁰ This particular theory relates to one of the main issues (and a primary focus of this paper) on the Kuskokwim, as many users either struggle with or refuse to adapt to management agency agendas. Furthermore, the

²⁸ Craig Medred, "Fuzzy Math of Alaska Subsistence: Too Many People, Not Enough Fish, Game," *Alaska Dispatch News* (Anchorage, AK), 2013, accessed June 2015, <http://www.adn.com/commentary/article/fuzzy-math-alaska-subsistence-too-many-people-not-enough-fish-game/2013/10/21/>.

²⁹ Walter W. Powell and Paul DiMaggio, *The New Institutionalism in Organizational Analysis* (Chicago: University of Chicago Press, 1991), 48.

³⁰ Ibid.

abilities of users to shape the institutional contexts imposed on them, has been fraught with challenges.

Meyer and Rowan observe: “What legitimates institutionalized organizations, enabling them to appear useful in spite of lack of technical validation, is the confidence and good faith of their internal participants and their external constituents.”³¹ State and federal management agencies have technical expertise; however, such expertise does not legitimate the agencies in “the eyes” of user groups. For example, fisheries biologists may truly believe that the methods and equipment they use are the most efficient and accurate tools available, a belief that not only legitimizes their actions in their own minds, but also lends support to any policies and/or regulations based on their research. By the same token, a local salmon fisher may believe his method, based on knowledge passed down to him through several generations, is just as valid, if not more so, than the scientific methods used by biologists. Ultimately, a formal institution interprets legitimacy through its own measures and assumptions. Yet without recognition of their good faith and legitimacy among their external constituents, i.e. salmon fishers, public attitudes towards management agencies can deteriorate rather quickly. Arguably then, the increased ability of local organizations to influence management decisions could enhance management’s legitimacy in the eyes of users and the trust between management and local organizations / user groups.

³¹ Wharton, *Sociology of Organizations*, 79.

Economists Marquis and Battilana, in their article “Acting Globally but Thinking Locally,” argue for a shift in emphasis from the big picture of global organizational analysis to a focus on local communities, and how they oftentimes shape and influence complex formal organizations.

³² The authors’ base their argument on the idea that “the primary underlying premise of institutional theory is that action and choice cannot be understood outside of the cultural and historical frameworks in which organizations are embedded.”³³ In other words, researchers must develop an understanding of the fundamental drivers of social behavior: rules, norms, taboos, etc. within specific contexts. Although the article primarily focuses on local organizations’ response to globalization, important themes apply here, including the need for management agencies to understand the cultural and historical settings in which they operate. The following discussion of organizational versus institutional theory will further illuminate how local conditions, norms, and user organizations influence the functioning of state and federal fisheries managers and how the multiplicity of local communities along the Kuskokwim River inhibits local users from developing cohesive objectives and speaking with one voice to influence management.

3.3 Organizational versus Institutional Theory

Following is a brief comparative analysis of two theoretical schools of thought, organizational theory and institutional theory, which will shed light on the challenges of fish and

³² Christopher Marquis and Julie Battilana, "Acting Globally but Thinking Locally? The Influence of Local Communities on Organizations," (prepared for *Research in Organizational Behavior*, 2007), accessed June 2014, <https://pdfs.semanticscholar.org/9ecc/71ac98511b4fed03633ad6bc864bf5f31fbe.pdf>, 4.

³³ Ibid., 4.

game management in Alaska. Organizational theory differs from institutional theory in that the former essentially focuses on the players, while the latter focuses on the *rules* that govern these players. Economist Douglas North defined institutions as “humanly devised constraints that structure human interaction.” Components of institutions include “formal constraints (rules, laws, constitutions)” and “informal constraints (norms of behavior, conventions, and self-imposed codes of conduct).” He added that both sets of constraints “define the incentive structure of societies.”³⁴ Importantly to this thesis research, Marquis and Battiliana note that “communities exert a regulative influence on organizations.”³⁵ The latter authors base this statement on the abilities of local governments, in particular, to influence organizations acting within their communities. In applying this notion to the situation on the Kuskokwim River, it is important to remember that local entities try to influence two organizations: ADFG and USFWS. Considering the special relationship between Alaska Natives and the federal government, one could presume that tribal governments have more bargaining power with USFWS than ADFG. My research bears out this assumption or hypothesis.

Marquis and Battiliana apply William Richard Scott’s three pillars model of institutional theory to their understanding of local communities’ ability to influence organizations. Scott postulates that all institutions are characterized by three functions or capacities: regulative; normative; and cognitive, sometimes called cultural-cognitive. Regulative refers to the

³⁴ Douglass C. North, " Prize Lecture: Economic Performance Through Time," *Nobelprize.org*, 1993, accessed June 2014, https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1993/north-lecture.html.

³⁵ Marquis and Battiliana, “Acting Globally,” 16.

institution's abilities to constrain and adapt human behavior. Normative focuses on institutions' capacities as prescribers of basic rights and privileges. Battliana and Marquis define the third pillar: "Cultural-cognitive institutional forces are pervasive frames of reference and identity that provide templates or models that facilitate the adoption of similar practices for members of a community group."³⁶ The authors emphasize that: "Communities also have a deeper set of shared frameworks or mental models upon which actors draw to create common definitions of a situation, and these are tied to longstanding identity and tradition associated with locations and regions."³⁷

This notion of shared identity and traditions raises an interesting point when applied to local community-formal organization relationships. The actors the authors refer to are members of a single community, and the authors assume a mutual understanding of norms, rules, and taboos among them. However, in the context of the Kuskokwim, the resource user groups are spread throughout multiple communities and thus have multiple perspectives. This diversity of communities creates diverse interests, which thwart the user groups' ability to influence the managers.

Kevin Bartley analyzes the challenges local communities face in their interactions with resource managers in his thesis titled "They Don't Know How We Live: Understanding Collaborative Management in Western Alaska."³⁸ Bartley argues that a primary point of

³⁶ Ibid., 26.

³⁷ Ibid.

³⁸ Bartley, "They Don't Know How We Live," 1-4.

contention between management agencies and subsistence users is that management agencies do not understand the cultural-cognitive institutions among subsistence users, the majority of whom are Alaska Natives. Assuming the opposite perspective of Battliana and Marquis, Bartley examines the challenges local communities and/or organizations (Alaska Native subsistence users) face in dealing with formal organizations (fish and game management agencies). These challenges, Bartley finds, must be overcome to create an effective collaborative management regime between agencies and users.³⁹ Where Battliana and Marquis emphasize the importance of understanding and recognizing the strong influential capabilities of local communities and organizations on formal organizations, Bartley examines the obstacles to local influence. In either case, all authors recognize that there exist cultural differences across communities that result from different frames of reference and standards of legitimacy.

While organizational theorists offer a variety of explanations for organizational motives, behaviors, and outcomes, they all begin with the axiom that people organize to get things done. This does not explain what drives human behavior, however. People come together for a common cause, but how do they come together? And what can generate consensus within a group?

Meyer and Rowan argue that organizations “dramatically reflect the myths of their institutional environments instead of the demands of their work activities.”⁴⁰ The myths refer to

³⁹ Ibid., 2-6.

⁴⁰ Wharton, *Sociology of Organizations*, 68.

the rules and norms that govern a particular group of people's behavior. The authors suggest that organizations are an integral part of humanity, and not a separate inorganic facet of society solely fabricated for a particular purpose, or in response to a specific demand.⁴¹ They recognize that "organizations are driven to incorporate the practices and procedures defined by prevailing rationalized concepts . . . institutionalized in society." Battliana and Marquis agree and emphasize not only the necessity of this incorporation, but also its recognition by outside entities, i.e. larger, more formal organizations. In other words, they argue that within a formal-informal organization relationship, each group must work to incorporate, or at the very least recognize, the institutional norms of the other group.

3.4 Conclusion

As indicated earlier, formal and informal organizations differ in numerous ways that go beyond structural differences. Formal organizations are generally more structurally complex than informal organizations. They share a common impetus for organizing and employ various tactics in achieving that goal. Formal organizations impose systematic processes on their members through the division of labor, enforcement of duties, and the implementation of standard policies and procedures. This is not necessarily the case within an informal organization, such as a voluntary organization. The interactions within informal organizations tend to be more communal in nature, as opposed to the associative properties that characterize interactions within formal organizations that tend to focus on identified aims.

⁴¹ Ibid.

Bartley paid particular attention to these differences in interactions between the two categories of organizations by focusing on clashes between users and management agencies, which he contends result from conflicting cultural values between the two groups. The impetus for the author's research was the waning participation of subsistence users in the various advisory committees established by management agencies to provide a forum for user input in salmon management. Bartley concluded that cultural differences, and a lack understanding of Yup'ik culture on the part of management agencies, led to the decline in user participation.⁴² In other words, Bartley concluded that state and federal management agencies do not understand the institutional structure of Native peoples living along the Kuskokwim. Whether this misunderstanding derives from cross-cultural miscomprehension or institutional resistance to traditional knowledge is unclear.

As stated above, the primary goal of management agencies is to create a sustainable salmon fishery on the Kuskokwim River, and formal organizations exist to achieve this goal. Subsistence users contend that local traditional knowledge can contribute to effective management strategies. Some users feel that although agency personnel may appear to listen, they are not hearing what subsistence users say. Differences in organizational structures, aims and norms likely contribute to the resistance within management agencies to local user organization perspectives and to incorporating those perspectives in management policy.

What, then, are the obligations and/or responsibilities of the state and federal managers to subsistence users and their organizations? The following discussion will focus on the origin of

⁴² Bartley, "They Don't Know How We Live," 2-6.

these obligations and responsibilities, and the organizational capacities of all interest groups involved with Kuskokwim River salmon, as well as examining the relationships between users and management agencies.

Chapter 4

Co-Management

In 2007, researchers with the German Agency for Technical Cooperation (GTZ) and the World Conservation Union (IUCN) posed the question: “Is it possible to go beyond what the State declares to be the best way to manage natural resources? If so, how?” Representatives of both organizations attempted to answer these questions in a collaborative publication entitled “Co-management of Natural Resources: Organizing, Negotiating and Learning-by-Doing.”¹ GTZ, a private organization based in Germany, provides a variety services in “international cooperation for sustainable development.”² Created in 1948, the IUCN is “a membership Union uniquely composed of both government and civil society organizations” that “provides public, private and non-governmental organizations with the knowledge and tools that enable human progress, economic development and nature conservation to take place together.”³ IUCN promotes itself as “the global authority on the status of the natural world and the measures needed to safeguard it.”⁴

¹ Grazia Borrini-Feyerabend et al., *Co-management Of Natural Resources: Organising, Negotiating and Learning-By-Doing*, ebook (repr., Heidelberg: GTZ and IUCN, 2007). x.

² "Identität," Deutsche Gesellschaft für Internationale Zusammenarbeit,, accessed March 2016, https://www.giz.de/de/ueber_die_giz/98.html.

³ "About," International Union For Conservation Of Nature, accessed July 2015, <https://www.iucn.org/secretariat/about>.

⁴ Ibid.

The publication provides a handbook or guide for “development and conservation professionals,”⁵ outlining the processes by which agencies and other actors can effectively engage in the co-management of natural resources. GTZ and IUCN define co-management as “A situation in which two or more social actors negotiate, define and guarantee among themselves a fair sharing of the management functions, entitlements and responsibilities for a given territory, area or set of natural resources.”⁶

The authors offer several characteristics of a co-managed system, which include its being a “pluralist approach to managing natural resources,” meaning that several different interest groups are typically involved, all sharing the same goal. Furthermore, the authors explain that co-management can address social justice and “democracy” in the context of natural resource management. Ultimately, co-management represents: “The expression of a mature society, which understands that there is no ‘unique and objective’ solution for managing natural resources but, rather, a multiplicity of different options which are compatible with both indigenous knowledge and scientific evidence and capable of meeting the needs of conservation and development (and that there also exists a multitude of negative or disastrous options for the environment and development).”⁷

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

4.1 Co-Management Support and Opposition

Borrini-Feyerabend, et al. indicate that both supporters and opponents of co-management justify their positions based on the nature of their interests. Opponents to co-management tend to argue that the co-management process is too costly and time-consuming and that it is politically loaded and therefore should not apply to the goal of conservation. In addition, opponents argue that co-management compromises conservation goals, presumably due to the number of different interest groups vying for authority and the use of the resource.⁸

Supporters of co-management often stress the negative consequences of alternatives to co-management. Supporters argue that the absence of a co-managed system results in “endless conflicts” among interest groups, which produce “destructive behavior towards the natural resources.” Effective management of a natural resource, co-management supporters argue, requires that all interests are represented through the collective incorporation of various ideas and knowledge systems. Supporters argue that “the people paying the price of conservation and ‘development’ need a voice in decision making.” Lastly, co-management supporters recognize that the “interaction between people and environment is part of nature” and that this relationship “should not be severed because of one-sided theories and argument.”⁹ In other words, refusing to collaborate would not only be counterproductive to maintaining an amicable

⁸ Ibid.

⁹ Ibid.

relationship, but would violate the intimate relationship between natural resource they are attempting to protect and the people who draw sustenance from it.

Opponents to co-management may include larger formal organizations that typically wield more management authority, i.e. the state. Co-management opponents' apprehension may stem from concerns about potential threats to the groups' authority. However, some researchers, including Canadian scholar Fikret Berkes, argue that co-management systems negatively "lead to reinforcement of local elite power or to strengthening of state control."¹⁰ Local resource users may find themselves underrepresented by their chosen delegates and/or elected officials. Expounding on this last point, Berkes explains that "the exclusion of marginal stakeholders who are poor and politically weak may have negative impacts on equity and community welfare."¹¹

4.2 Defining Co-Management

Jentoft et al. define co-management as the "collaborative and participatory process of regulatory decision-making among representatives of user-groups, government agencies and research institutions."¹² Although the same idea could be applied to the co-management of any natural resource, speaking of fisheries management in particular, the authors posit that "co-

¹⁰ Emphasis added.

¹¹ Fikret Berkes, "Evolution of co-management: Role of knowledge generation, bridging organizations and social learning," *Journal of Environment Management* 90 (2009): 2, doi:10.1016/j.jenvman.2008.12.001.

¹² Svein Jentoft, Bonnie J. McCay, and Douglas C. Wilson, "Social theory and fisheries co-management," *Marine Policy* 22, no. 4-5 (1998): 423-424.

management is thought to do away with what is seen as the distant, impersonal, insensitive bureaucratic approach.”¹³ Regardless of what a co-management system is supposed to entail, clearly defining the concept has proven challenging.

In 2010, the Assembly of First Nations (AFN), a Canadian Indigenous advocacy group that represents over “900,000 people living in 634 First Nation communities and in cities and towns across the country”¹⁴ developed a co-management discussion paper.¹⁵ One primary purpose of the piece was to resolve the disagreement between AFN (and First Nations tribes as a whole) and the Department of Fisheries and Oceans (DFO), Canada’s equivalent to the United States Fish and Wildlife Service, regarding the definition of co-management. The authors explained that providing a definitive meaning of co-management would “provide support and enhancement to DFO’s co-management initiatives” as well as “increase the efficiency and efficacy of fisheries management regimes, policies, protocols, and regulations.”¹⁶ AFN recognized that “the Department of Fisheries and Oceans (DFO) has taken important steps to realize the potential of aquatic resource ‘co-management,’” acknowledging that “a fishery cannot be managed effectively without the cooperation and participation of fishers to make laws and regulations

¹³ Ibid.

¹⁴ "Description Of The AFN," Assembly Of First Nations, accessed April 2016, <http://www.afn.ca/en/about-afn/description-of-the-afn>.

¹⁵ *Co-Management Discussion Paper*, (Assembly of First Nations), accessed May 2016, http://www.afn.ca/uploads/files/env/comanagement_paper.pdf, 3.

¹⁶ Ibid., 4

work.”¹⁷ AFN concluded that the discussion increased “the legitimacy of First Nations governance bodies and federal powers over local fisheries.”¹⁸

In the discussion paper, the authors acknowledge that there is no “precise definition” of co-management.¹⁹ They offer a general description as “a partnership between the community of local resource users, other primary stakeholders . . . government and NGO’s who share responsibility and authority for resource management.”²⁰ AFN did not concede to this terminology, however; quite the contrary, actually. The piece stressed that there is no consensus on the definition of co-management, and that the lack of a well-defined meaning has impeded progress. According to AFN, “the frustrations (felt among First Nations) with ‘co-management’ can be attributed to the lack of a standard definition for the term.”²¹

AFN elaborates on the First Nations’ skepticism regarding the meaning of co-management, noting that although defining co-management may “qualify” the “aspects and characteristics” of the concept, it fails to “delineate comprehensive theories and paradigms for interpretation.”²² Furthermore, simply defining the term does not necessarily provide the “road maps for implementation” they pointed out. AFN argues that definitions of co-management need

¹⁷ Ibid., 6

¹⁸ Ibid., 11.

¹⁹ Ibid., 7.

²⁰ Ibid.

²¹ Ibid.

²² Ibid.

be situation-specific, catering to specific players acting in particular situations; there is no one-size-fits-all definition of the concept. AFN argues that it is impractical to apply the definition used in one scenario with the hopes of predicting the long-term efficacy of an entirely different co-management scenario. As Canadian researcher Gerret Rusnack points out, co-management is “an ideal management system” that “does not actually exist in practice.”²³

Two primary challenges with co-management can be deduced from the AFN discussion paper: defining as well as interpreting the concept of co-management. Speaking on the latter challenge, AFN states that oftentimes in determining vague terms during the bargaining phase, parties to co-management agreements assume they can strategically interpret co-management terms as the regime matures. Government, with its better access to technical, funding and legal resources, is assumed to have greater capacity to enforce its own interpretation of co-management regimes.”²⁴

The AFN concludes that “the confusion regarding co-management has resulted in a general disdain for activities attempting to establish an academic definition of the term.”²⁵ As a result, “First Nations have expressed a clear preference to move away from co-management and towards technical implementation-based activities centered on an understanding of ‘joint-management.’”²⁶ Co-management and joint-management share some similarities. The idea of

²³ Gerret Rusnak, *Co-Management of Natural Resources in Canada: A Review of Concepts and Case Studies* (Ottawa: International Development Research Centre, 1997), 3.

²⁴ Ibid., 8.

²⁵ Ibid., 11.

²⁶ Ibid.

joint management itself “is understood to reflect the ‘rights holding’ status of First Nations” based on the agreements defined in various treaties between First Nations and the government of Canada. Without clearly defining the concept, the paper provides a number of guidelines for consideration. Among other points, the guidelines recognize the similarities and dissimilarities between the concepts of co-management and joint management. Most importantly, however, AFN points out that while co-management is (or rather has become) a concept that is open to interpretation, joint-management is a term that governments and First Nations must define together, and subsequently implement.²⁷ According to AFN: “Joint-management is understood to differ from co-management by removing doubt towards the ‘cooperative’ nature of the governance regime. Cooperation may be interpreted either as joint-action or providing assistance, whereas joint implies an equitable partnership throughout the governance process.”²⁸ This latter point emphasizes the key difference between the two systems.

4.3 Integrating Co-Management

Berkes argues that the concept of co-management has many “faces,” as the idea serves to facilitate components of local-state relationships that go beyond the fundamental power sharing arrangement. According to Berkes, “government agencies are rarely ready for partnerships” with local interest groups.²⁹ The question, then, is how can a co-management system be implemented if this is often the case? Berkes recommends that local interest groups

²⁷ Ibid., 11.

²⁸ Ibid., 7.

²⁹ Berkes, “Evolution of Co-Management,” 1693

improve their existing institutions, strengthening weaknesses and building capacity to become more effective in dealing with state agencies. In the event that an existing institution cannot be refined or improved upon, local interest groups may need to form a new institution altogether, he says. At the same time, Berkes argues that the state, typically wielding more power and having more resources than local groups, can formulate a “favorable policy environment” that accommodates all interest groups. In other words, in the context of natural resource management, it is the state’s responsibility to formulate a policy-making framework that is practical for all interested parties. As Berkes and several other researchers have argued, “the direct involvement of people in resource management decisions that affect their livelihoods is good governance.” Therefore, the structure of the policy making process, and the degree to which it accommodates local users, is a fundamental obligation of the state to its citizens.³⁰

Berkes further emphasizes that relationships between institutions (state and local) must be built upon trust. Indeed, trust or the lack thereof is a main point of contention among local users, local institutions, and management agencies working on the Kuskokwim. Supporting his argument, Berkes mentions the conclusions researchers drew from a study of two caribou management systems, one Canadian and one Alaskan.³¹ Researchers had hypothesized that the Canadian joint-management system would “produce greater cooperation and agreement than

³⁰ Berkes, “Evolution of Co-Management,” 1694.

³¹ Ibid.

the Alaskan hierarchical system” because local users would theoretically be directly involved throughout the decision-making process.³²

Researchers interviewed personnel working with state management agencies, as well as conducting surveys among local users. The primary goals of the study included: “(1) advance our understanding of the relationships between common property resource management structures and management effectiveness; (2) develop a sound empirical baseline on two Arctic management systems which may be seriously stressed in the next five to ten years due to a possible decline in wildlife populations; (3) apply quantitative scientific methods to comparisons of management systems and their effectiveness.”³³

The fundamental difference between the two management systems lay in the nature of the relationship between users and management agencies, a finding that weighed heavily in the conclusions of the study. In sum, Indigenous users on the Canadian side maintain a treaty-based relationship with the Canadian government, whereas Alaska Native users’ relationship with management agencies lies in a land claims agreement. Researchers perceived the Canadian joint-managed system as more equitable, affording users a more active role in caribou management. The management system in place in Alaska, according to researchers, was far more hierarchical and complex and therefore less accommodating of local caribou users.³⁴

³² Jack Kruse et al., "Co-Management of Natural Resources: A Comparison of Two Caribou Management Systems," *Human Organization* 57, no. 4 (1998): 447-458, doi:10.17730/humo.57.4. q5825utw35841p11.

³³ Ibid., 1.

³⁴ Ibid., 16.

In the Canadian case, the fact that the users maintained a relationship with managers based on treaty rights made some users resistant to acknowledging the government's legitimate role in management, given that the First Nations' subsistence rights had never been extinguished in the treaty process.³⁵ Nevertheless, researchers found that the joint-management system itself proved to be a far more progressive and respectful approach to involving local communities in the policy making process. The Canadian government had taken the lead in community outreach and local participation throughout the management process. They held meetings in local communities, encouraged local school involvement, etc. The researchers concluded that the Canadian government went above and beyond and declared: "This level of village involvement appears to be without precedent in the management systems of either Canada or the United States."³⁶

In contrast, in Alaska, the NANA regional corporation and the not-for-profit Maniilaq Corporation took the initiative in community outreach and local participation. Despite the Board of Game's (BOG's) initial approval of the proposal initiated by NANA and Maniilaq, the Alaska Department of Law deemed the proposal unconstitutional because it discriminated against sport hunters; thus the BOG tabled the proposal. Many view the hierarchical structure of game management in Alaska as a serious impediment to user input. The Canadian approach included a management board comprised of government officials and local hunters. The composition of

³⁵ Ibid., 15.

³⁶ Ibid., 16.

Alaska's BOG contrasts starkly, as it consists of governor- appointed individuals, many of whom do not represent subsistence interests. The researchers concluded:

Facing a caribou crisis, Alaska Natives had sufficient resources to propose an effective management response that failed only in the courts. In Canada, where the Dene lacked (and continue to lack) the resources to respond themselves, the Province of Manitoba provided a biologist to engage communities in a decision-making process suited to their culture. Alaska biologists today have a similar intent, but they lack the support of the Board of Game to proceed. Common to both historical examples of 'successful' intervention is a substantial presence of management in communities. Our research suggests that it is not appropriate to expect user representatives on management boards to substitute for this management presence. When coupled with a user/manager board, however, an increased management presence in communities may provide a more effective approach to management than we have achieved to date.³⁷

Despite the much more favorable conditions for joint management in this Canadian case, Canadian First Nations also experience much frustration with attempts at co-management of resources, as discussed in Chapter 5. However, one important takeaway from this study was the observation that the primary condition leading to more effective co-management in Canada was

³⁷ Ibid., 17.

“the frequent presence of government biologists in native communities. Social capital is important, not only in indigenous co-management but also in all cases, because it is a prerequisite for collective action and social learning.”³⁸ This is an interesting point, and oftentimes a point of contention among local salmon users on the Kuskokwim. Users feel that agency biologists tasked with management of the fishery, do not understand the “big picture” simply because they are seasonally stationed in Bethel and are not “part of the community.”³⁹

The composition of co-management representatives may include a mixing of the same types of groups mentioned above, that is, state and federal agencies, but acting in different capacities. For example, the United States Fish and Wildlife Service (USFWS) and several Inupiaq organizations share co-management responsibilities with marine mammals in Alaska.⁴⁰ Marine mammals fall under federal protection in the United States, and therefore attract protection efforts from outside groups that may seek to expand their own interests, i.e. big game hunting guides and conservation groups. Oftentimes, these interests do not support local usage. Nevertheless, communities in the North Slope Borough have over a dozen groups focused on co-management of a variety of species wherein they have equal say in management. These groups are functional systems of co-management which authorize subsistence users to have an effective

³⁸ Berkes, "Evolution of Co-Management," 1694.

³⁹ McDevitt field notes "Kuskokwim Patterns and Trends" August 2015.

⁴⁰ "Co-Management Organizations," North Slope Borough, accessed March 2015, <http://www.north-slope.org/departments/wildlife-management/co-management-organizations>.

voice in decision making. These relationships are examples of the Federal government's fulfillment of the Federal Trust Responsibility.⁴¹

IUCN and GTZ intended for their publication to be used as a co-management handbook by groups interested in achieving and implementing co-management of natural resources. The publication covers all aspects of the process, from organization of the co-management regime through refining its processes. The three main stages of developing a co-management system include: 1) organizing for the partnership, 2) negotiating plans and agreements, and 3) learning by doing. Of course, the precursor to all three stages is consensus on the impetus, or the "point of departure;"⁴² that is, collective recognition among interest groups that the current system is broken, or at least inadequate, and that reform is needed. Coming to this "point of departure," however, is the foremost challenge facing interest groups seeking to achieve more authority through co-management; opinions may vary among groups as to the origins of the problems. Notwithstanding this challenge, it seems as though the authors could have included a preliminary phase: developing a collective definition of co-management agreed upon by all parties involved. Although the collective recognition of a particular problem is the initial driving force behind the desire to implement a co-managed system, it would behoove groups to settle on a definition of co-management.

⁴¹ "Wildlife Management," North Slope Borough, accessed March 2015, <http://www.north-slope.org/departments/wildlife-management/co-management-organizations>.

⁴² Grazia Borrini-Feyerabend et al., *Co-management Of Natural Resources: Organising, Negotiating and Learning-By-Doing*, 4.

In an article entitled “Evolution of co-management: Role of knowledge generation, bridging organizations and social learning,” Berkes defines co-management as “the sharing of power and responsibility between the government and local resource users.”⁴³ The IUCN and GTZ co-management handbook indicates that co-management is an equal sharing of power between two or more entities.⁴⁴ Considering the power imbalance between the state and local interest groups, coming to an agreement on the definition of co-management remains problematic.⁴⁵

4.4 “Weaving Together Two Worlds” Co-Management Symposium at the University of Alaska Fairbanks

In November of 2015, the University of Alaska-Fairbanks (UAF) College of Rural and Community Development (CRCD) hosted a co-management symposium. Attendees included state and federal management agency representatives, Alaska Native representatives, and university officials. The symposium, organized under the rubric “Weaving Together Two Worlds,” provided “a forum to build understanding, relationships, and knowledge for advancing the co-management of Alaskan fish and wildlife resources.”⁴⁶ The forum focused on bridging the gap between Alaska Native subsistence users and state and federal management agencies. CRCD

⁴³ Berkes, “Evolution of Co-Management,” 1692-1702.

⁴⁴ Borrini-Feyerabend et al., *Co-management Of Natural Resources*,” x.

⁴⁵ The State of Alaska does not share the same exclusive relationship with Alaska Natives as does the Federal government. In terms of resource management, the State of Alaska does not maintain a Memorandum of Understanding (MOU) with local interest groups on the Kuskokwim River, as does the acting Federal agency- USFWS- with local interest groups, namely the KRITFC.

⁴⁶ “Defining Co-Management” (handout: Weaving two worlds together: Co-management symposium, University of Alaska-Fairbanks College of Rural and Community Development, November 2015).

representatives noted that the “shared goals and values of all fish and wildlife resource managers” are to produce and maintain “healthy ecosystems, healthy populations, [and] resource abundance” and that these same goals aligned with those held by subsistence users.⁴⁷

The symposium followed a rather comprehensive agenda over the course of several days. Day one of the symposium included discussions titled “Opportunities in Co-Management,” “Co-Management in Alaska Today,” “Collaborative Management in Alaska Today,” and “Building Bridges, Building Capacity.” The second day of the symposium featured discussions on “Moving Forward: Co-Management on the Horizon” and “Reflections on Collaborative Research,” as well as group workshops offering “Cross-Cultural Communication” exercises and cooperative solutions as they pertain to remedying the challenges and conflict among Alaska Native subsistence users and management agencies.⁴⁸

On day one, attendees devoted much energy to defining co-management and differentiating it from other types of management systems. Group representatives expressed differing perceptions and/or definitions of co-management in natural resource management.⁴⁹

An Alaska Native Affairs specialist working with the USFWS presented the agency’s definitions of co-management and collaborative management. According to her, the primary difference between co-management and collaborative management is that co-management carries legal authority, while collaborative management does not. She suggested that

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Chris McDevitt notes, UAF Co-Management Symposium, November 2015.

collaborative management allows more opportunities to improve upon user-management agency relationships, because neither side is bound by legalities. In contrast, she explained, a true co-management system is mired in legalese and bureaucratic constraints, reducing its effectiveness. She asserted that the USFWS prefers the collaborative management approach.⁵⁰

A fisheries biologist with ADFG acknowledged that many obstacles or impediments to cooperation remain. These include personal agendas, egos, and narrow mindedness, all of which are counterproductive to cooperatively managing natural resources. According to the biologist, continuing an open dialog between management agencies and users can bridge the gap between the two entities. He added that becoming mired in specificities and legalese, impedes solutions.⁵¹

Craig Fleener, the Special Assistant on Arctic Policy to Governor Walker, urged working together toward resource stewardship to effectively accommodate different needs. He asserted that the natural resource management system in Alaska is “broken” and that management agencies base user need estimates on harvest levels, which is not a reliable measure of *need*. Fleener stressed that good co-management uses a bottom up approach and that subsistence management must start in the village.⁵²

Stewart Cogswell, a fisheries biologist with the USFWS, discussed two approaches that users and management agencies can take in cooperatively managing natural resources: the

⁵⁰ “Defining Co-Management,” handout.

⁵¹ Ibid.

⁵² Ibid.

legislative route or a collaborative approach. The legislative route would alter current law to provide users with the legal wherewithal to co-manage. The second route (which Cogswell preferred) would entail simply continuing to work together in a collaborative capacity. He added that the best management plans were those that were “committed to excellence,” noting that simply being an Alaska Native subsistence user does not necessarily mean that one is deserving of a “seat at the table.” To build capacity, user groups need to have a plan with a purpose. Only then can they anticipate opportunities for involvement, he said. Cogswell suggested that if user groups or management agencies harbor hidden motives, the relationship will not succeed.⁵³

Mike Williams, an Alaska Native subsistence user from Akiak, talked about his role with the Kuskokwim River Intertribal Fish Commission (KRITFC), which is based on the model of the Columbia River Intertribal Fish Commission (CRITFC). The CRITFC was formed as a result of litigation brought against the U.S. Government. In 1979, several tribes from the Puget Sound and Washington State area sued the federal government because too many treaty fish were being harvested in federally managed waters. The court ruled that the federal government had a legal obligation to regulate to ensure that a “reasonable number of salmon” reached tribal grounds on the Columbia River.⁵⁴ In 1982, Congress recognized the CRITFC as a tribal entity tasked with “enforcing tribal fishing regulations along the Columbia River Zone 6.”⁵⁵ Williams spoke of KRITFC

⁵³ Ibid.

⁵⁴ “Fisheries Timeline,” Columbia River Inter-Tribal Fish Commission, accessed September 2015, <http://www.critfc.org/about-us/fisheries-timeline/>.

⁵⁵ Ibid.

achievements, including the signing of a Memorandum of Understanding with the USFWS, and negotiation of an allocation of king salmon among users on the Kuskokwim during the 2015 season.⁵⁶ This case provided a good example of how the dual management system has marginalized users. In 2015, the KRITFC and USFWS agreed that all federally qualified subsistence users living along the Kuskokwim would be allocated a certain number of king salmon for subsistence needs. Although this opportunity was offered to all federally qualified subsistence users who lived in communities throughout the entire drainage, fishing had to take place within the YDNWR boundary and could not extend into state waters. The State could not enter into this agreement because the allocation was exclusively designated to one group of users and not all Alaskans. Therefore, due to a variety of factors including logistical issues, cost of gas, etc. middle and upper-river residents were unable to take advantage of this opportunity. Williams indicated that the tribes along the Kuskokwim have policy differences with state management agencies, and they are not afforded the same protection that tribes receive from the Federal Government. Therefore, Williams indicated that KRITFC prefers to work with the USFWS on fishery management issues, largely owing to the Federal Trust Responsibility.⁵⁷

4.5 Conclusion

It could be argued that those who define the terms make the rules. In the case of co-management, the various sovereign powers, i.e. the state, the federal government, and federally-recognized tribes in Alaska, define co-management in a variety of ways. In the Canadian First

⁵⁶ McDevitt notes, UAF Co-Management Symposium, November 2015.

⁵⁷ Ibid.

Nations case described above, representatives presented their own concept with the idea of joint-management -- a clearly defined management system less susceptible to misinterpretations, and a forum that provides equal (and legally required) representation for both sides. In Alaska, however, state and federal fish and game management agency representatives seem to resist meaningful co-management altogether. From these individuals and their respective institutions' perspectives, co-management leads to inefficiencies and is bound by legalities which may interfere with the policy making process. At least one federal agency representative expressed skepticism of the value of user perspectives. Others expressed distaste for the bureaucratic constraints that formal co-management entails. The acting management agencies, USFWS and ADFG, prefer the concept of collaborative management which is the current, albeit "broken," status quo in Alaska. This was made clear by agency representatives who spoke at the symposium. However, Tribal representatives and Alaska Native subsistence users in Alaska are not satisfied with the idea of collaborative management, as it is defined by state and federal agencies. For Alaska Native representatives and Alaska Native subsistence users, the status quo does not permit the meaningful involvement of subsistence users in fish and game management. Tribal representatives and Alaska Native subsistence users recognize other potentially effectual avenues to disrupt the status quo and to move toward meaningful engagement by subsistence users in fish and game management.

Chapter 5

Striving for Equitable Co-Management

Changing the status quo in fisheries management in Alaska requires organizational support and unity. Local organizations must maintain a unified message based on justifiable positions. Alaska Native representatives and subsistence users alike understand this

The Kuskokwim River Inter-Tribal Fish Commission (KRITFC), formed in 2015, seeks to assume an equal role, alongside state and federal agencies, in managing the salmon fishery on Alaska's second longest river. As it stands today, this fishery is not co-managed between user groups and government agencies; subsistence users have no legal management authority. The KRITFC argues, as do many rural Alaskans, that they have yet to assume a meaningful role in the management of fish and wildlife resources, as was promised to them over thirty-five years ago in Title VIII of the Alaska National Interests Land Conservation Act (ANILCA). The KRITFC seeks to change the status quo.

The State of Alaska and the Federal government have been reluctant to devolve meaningful co-management authority to subsistence users on the Kuskokwim River. The United States Fish and Wildlife Service (USFWS), the agency that manages approximately 43 percent of the Kuskokwim (or roughly 300 river miles), prefers to engage in collaborative management with

local subsistence users, as opposed to co-management.¹ The Alaska Department of Fish and Game (ADFG) has taken the same stance.²

The prospect of gaining legal authority to manage the river's salmon fishery may seem bleak to subsistence users and tribal representatives alike, considering the ADFG and USWFS stance on the issue, and especially because the resource in question represents a multi-million-dollar industry and supports several user groups including sport, commercial, and subsistence users. Inter-river conflict among the different regions of the Kuskokwim also hinders progress toward meaningful co-management. Their respective interests typically pit middle and upper-river communities against lower-river communities. Common complaints from middle-and upper-river users include claims that lower-river users overfish and that the fishery cannot sustain the large population in lower-river communities. Lower-river residents point out that middle- and upper-river communities have easier accessibility and are in closer proximity to other resources such as moose. Therefore, they say, people living upriver from the northern Yukon Delta National Wildlife Refuge boundary do not rely on salmon as heavily.³ Points of contention also divide subsistence users and major commercial fishing outfits operating in the Bering Sea.⁴

Before local subsistence users living in all regions of the Kuskokwim can effectively engage in a system of co-management, they must hash out their differences enough to agree on a

¹ "Defining Co-Management," handout.

² Cotten, "Co-Management; Subsistence Fishery Disasters," Powerpoint Slide 2.

³ Lower and middle river fishers, personal communication with author, 2015-2017.

⁴ Syma A. Ebbin, "What's Up? The Transformation of Upstream-Downstream Relationships on Alaska's Kuskokwim River," *Polar Geography* 26, no. 2 (2002): 147-166, doi:10.1080/789610136.

framework that accommodates all regions and interests. Failure to do so will stymie subsistence users' effectiveness in the management process.

Notwithstanding regional differences, the KRITFC sees great potential value in a just and equitable co-managed system using both science and traditional ecological knowledge (TEK) to effectively manage the salmon fishery and restore it to sustainable levels. Despite the lack of co-management on the Kuskokwim, federal agencies (United States Fish and Wildlife Service, Department of the Interior) have shown willingness to work with the KRITFC through the establishment of a Memorandum of Understanding (MOU).⁵ This MOU describes the relationship and management responsibilities between the USFWS and KRITFC. The establishment of this MOU fulfills Section 809 of ANILCA, which authorizes the Secretary of the Interior to engage in cooperative agreements with "appropriate persons and organizations."⁶ Because of the rural subsistence priority and the special trust relationship between the federal government and Alaska Natives, federal agencies are obligated to protect Alaska Natives, their interests and goals, and the resources on which they depend. The state government has no such special relationship with Alaska Natives, but it does have obligations to all Alaskans, specifically regarding fish and game resources.

⁵ "Memorandum of Understanding Between United States Department of The Interior U.S. Fish and Wildlife Service, Alaska Region and Kuskokwim River Inter-Tribal Fish Commission," Napaimute.org, accessed August 2016, <http://napaimute.org/wp-content/uploads/2016/05/KRITFC-DOI-USFWS-MOU.pdf>.

⁶ ANILCA Title VIII Section 809, "Cooperative Agreements," 596.

5.1 Subsistence Management

Within state waters, a group of seven individuals, the Board of Fisheries (BOF), handpicked by the governor, approved by the state legislature, and bound by Alaska state law, dictate how and when people living along a remote 400 mile stretch of the Kuskokwim River can fish for salmon. The BOF is the ultimate decision-making body regarding state fisheries management in Alaska. Current BOF membership includes one Alaska Native board member from the Yukon River native village of Huslia.⁷ Since 1975, the composition of BOF members has been predominantly non-native members from non-rural communities who represent commercial and sport fishing interests.⁸ Subsistence fishers have been grossly underrepresented within the BOF for over thirty years, with no change in sight.

On the federal side of Alaska's dual management system, the Federal Subsistence Board (FSB) manages subsistence usage on federal land and waters, to include all activities conducted within the Yukon Delta National Wildlife Refuge (YDNWR). The FSB, essentially the counterpart of the state's BOF, is comprised of eight individuals, including representatives from the United States Fish and Wildlife Service (USFWS), Bureau of Land Management, Bureau of Indian Affairs, National Park Service, and the U.S. Forest Service, as well as three members of the public, all of

⁷ "Alaska Board of Fisheries Members," Alaska Department of Fish and Game, accessed May 2016, <http://www.adfg.alaska.gov/index.cfm?adfg=fisheriesboard.bofmembers>.

⁸ "Alaska Board of Fisheries Members Since 1975," Alaska Department of Fish And Game, accessed May 2016, http://www.adfg.alaska.gov/index.cfm?adfg=fisheriesboard.past_members.

whom represent subsistence interests.⁹ Thus subsistence users enjoy greater proportional representation on the FSB, a function of the FSB's stated focus on subsistence.

The State of Alaska and USFWS maintain a Memorandum of Understanding. The MOU outlines the cooperative nature of the relationship between the two agencies and addresses each agency's respective management responsibilities as they pertain to subsistence uses on Federal lands and waters. Section IV (12) of the MOU describes the State's role in management on Federal lands and waters. This particular section reflects the current approach on the Kuskokwim River whereas it is stated that the USFWS shall use the "State's harvest reporting and assessment systems . . . to monitor subsistence uses of fish . . ."¹⁰ It is for this reason that ADFG maintains partial management responsibility on the Kuskokwim River within the Yukon Delta National Wildlife Refuge (YDNWR).¹¹

Both the BOF and the FSB receive information from their respective fishery management agencies (ADFG and USFWS), as well as from regional advisory bodies that typically comprise individuals representing subsistence, commercial, or sport interests.¹² Regardless of the value of

⁹ "Board Members," U.S. Department of the Interior, accessed May 2016, <https://www.doi.gov/subsistence/members>.

¹⁰ "Memorandum of Understanding for Coordinated Interagency Fish and Wildlife Management for Subsistence Uses on Federal Public Lands in Alaska between the Federal Subsistence Board (U.S. Fish and Wildlife Service, U.S. Forest Service, National Park Service, Bureau of Land Management, Bureau of Indian Affairs, and Secretarial appointed Chair) and State of Alaska (Alaska Department of Fish & Game and Alaska Board of Fisheries and Alaska Board of Game (State Boards)), December 2008.

¹¹ Ibid.

¹² "YKDRAC Members," U.S. Department of the Interior, accessed May 2016, https://www.doi.gov/subsistence/regions/ykd_members.

the information that local users may provide to management agencies, neither entity is legally bound to incorporate this information in its decisions.

5.2 The Role of Traditional Ecological Knowledge in a Dual Management System

The sanctity of the western scientific method, coupled with the authority of institutions that implement state policies, leaves little space for knowledge accrued through other means. Western scientists and institutions that endorse the scientific method, for instance, tend to interpret knowledge accrued through generations of living on the land as anecdotal and therefore not as legitimate as information derived through recognized scientific methods. In the case of the Kuskokwim River salmon fishery, subsistence users hold such traditional ecological knowledge. Some subsistence users on the Kuskokwim feel that state and federal biologists- by failing to provide recognition to, embrace, and integrate the invaluable input that these users of the resource have provided based upon several millennia of “research”- cannot manage fisheries optimally or rather in their best interest. Canadian geophysicist and former director of Natural Resource Canada’s Polar Continental Shelf Program George Hobson observes: “Western scientists have a tendency to reject the traditional knowledge of native peoples as anecdotal, non-quantitative, without method and unscientific. From our scientific ivory towers, we tend to ignore basic knowledge that is available to us.”¹³

Traditional ecological knowledge (TEK) is a system of beliefs based on keen observations and extensive interactions over an extended time. In the context of the Kuskokwim, TEK is not

¹³ George Hobson, "Traditional Knowledge Is Science," *Northern Perspectives* 20, no. 1 (1992): 8-9.

exclusive to Alaska Native people. Many long time non-native residents are active subsistence users. Some of these individuals were born in the region or married into Native families.

Hobson defines TEK as “the accumulated knowledge and understanding of the place of human beings in relation to the world in both an ecological and spiritual sense.” Similar to western science, it “operates on a rational basis.” TEK is rooted in holism, based on the belief that all living things are related and therefore connected. TEK has informed human knowledge and experience since prehistory. All aspects of early human culture, including activities, religion, ethics, and social mores, were based on their association with the land and non-human life. TEK was inextricably embedded in systems of moral values, as it remains so today for many rural Alaskans. The system of beliefs is an intrinsically human characteristic, “a monument of our common humanity,” Hobson explains.¹⁴ The foundation for this system is the fundamental belief that “humans are and will forever be connected to the natural world.”¹⁵ In this context, “connected,” could be defined to include aspects of dependency and reciprocity. TEK is not a romanticized view of the world; it is in fact very practical. The study of ecology is rooted in this concept and could arguably be described as being a fundamentally holistic approach to understanding.

Researchers have produced a substantial body of literature focusing on the conflict and mistrust that characterizes relationships between indigenous populations and fish and wildlife management agencies. Most of the conflicts seem to stem from cultural differences. Many

¹⁴ Hobson, “Traditional Knowledge,” 8-9.

¹⁵ Ibid.

scholars have analyzed these differences, addressing opposing worldviews, values, and priorities. Some researchers have discussed the similarities between the two knowledge systems: western science and traditional ecological knowledge (TEK). Many have identified fundamental (and complementary) parallels in methodology and believe that integrating TEK would benefit fish and wildlife management.

Kuskokwim River subsistence users are urging management agencies to recognize the value of TEK and the benefits it could bring to current management approaches. Some subsistence users feel that the information gathering processes of the advisory councils (federal) and committees (state) are limited at best, providing a forum to speak, but no legitimate avenues for influencing decision making. Local subsistence users stress TEK's ability to rectify the inadequacies within current management approaches. Furthermore, proponents of TEK believe that it has a rightful place in the management process, noting that the usage of TEK has helped sustain Alaska Native peoples for thousands of years.¹⁶

The KRITFC's justification for assuming an equitable role in fish and game management rests partly on the value of local knowledge. KRITFC Chairman Mike Williams notes: "My thoughts go to my ancestors that have managed our resources for over 10,000 years. They have done a great job in making sure we have food security. We have traditional science and knowledge as we live right where they always fished."¹⁷

¹⁶ McDevitt Field Notes, ADFG Bethel P&T Aug 2015; McDevitt Field Notes, ADFG Lower and Middle River In-Season Monitoring Project June-July 2015, 2016, 2017.

¹⁷ Mark Trahant, "New Inter-Tribal Fish Commission Formed."

Some researchers have noted that the word “traditional” in traditional ecological knowledge may imply that TEK is antiquated, based on folklore and superstition, or simply knowledge of the past. Individuals who subscribe to this interpretation may argue that TEK is therefore incapable of addressing contemporary issues. Others, such as Hobson, have refuted this position, stressing that the fault lies with scientists’ inability (or reluctance) to recognize the value (and validity) of TEK.

In the context of the north, some social science researchers have argued that “scientific researchers are unable to understand the complexity of northern ecosystems through sporadic observation, as opposed to lived experience.”¹⁸ One could argue that the same holds true for scientific researchers working elsewhere, too. Entrenched in western philosophy is the belief that “humans are autonomous from and in control of the land.”¹⁹ Gadgil points out that: “The Western view of humans as entitled to dominate and utilize nature at will, elaborated during the age of European expansion, recognized no limits to the exploitation and modification of ecosystems.”²⁰

This idea of control and having authority over the natural world is the main concept that sets the belief systems of western science and TEK apart. Another quality that separates the two

¹⁸ Leonard J.S. Tsuji and Elise Ho, "Traditional Environmental Knowledge and Western Science: In Search of Common Ground," *The Canadian Journal of Native Studies* no. 2 (2002): 345.

¹⁹ Raymond Pierotti and Daniel Wildcat, "Traditional Ecological Knowledge: The Third Alternative (Commentary)," *Ecological Applications* 10, no. 5 (2000): 1333, doi:10.2307/2641289.

²⁰ Madhav Gadgil and Fikret Berkes, "Traditional Resource Management Systems," *Resource Management and Optimization* 8, no. 3-4 (1991): 127-141.

systems is the degree of humility found in TEK that western science generally lacks. TEK has been adapting to changes for millennia through a system of trial and error. Trial and error processes can present serious risks to survival. Indigenous groups have learned from experience the hard way, facing starvation, depleting resources, etc. Contending with the consequences of human error can be humbling, especially when human lives are at stake. The development of TEK represents learning from one's mistakes (and successes) over time and being prepared to adjust practices depending on the situation. The transfer of this knowledge has guided individuals over thousands of years. Considering that uncertainty and unpredictability are characteristics of all ecosystems, TEK's ability to adapt and evolve over time, represents one of its greatest strengths. As Hobson indicates, what is "often overlooked is the fact that the survival of northern aboriginal peoples depended on their knowledge, their special relationship with the environment, and their ways of organizing themselves and their values."²¹

In his book *Wildlife Management and Subsistence Hunting in Alaska*, H.P. Huntington speaks of the value of TEK in management, highlighting specific examples of this knowledge, including the "deep insight into animal behavior, population fluctuations, and the interrelationships that characterize an ecosystem."²² As a result, he concludes that "such knowledge should not be squandered by ignoring the keen hunter's eye."²³ Huntington notes the

²¹ Hobson. "Traditional Knowledge," 8-9.

²² Henry P. Huntington, *Wildlife Management and Subsistence Hunting in Alaska*, Polar Research Series (Seattle: University of Washington Press, 1992), 2.

²³ Ibid., 22.

importance of TEK in relation to cultural maintenance, as well as its fragility, stressing that TEK could be “lost forever by trying to end traditional ways of life.”²⁴ Many rural Alaska Natives have conveyed such concerns to me.

Regarding subsistence practices, which represent the application of TEK, former U.S. Senator Daniel Inouye warned that “without it, there would be no culture, no tradition, perhaps no community, and certainly no means of giving expression to the spiritual aspects of Native life.”²⁵ It has been recognized that TEK is a fragile system that typically remains within the boundaries of a particular community. According to Eugene Hunn, TEK “lives and dies with the community that sustains it, and . . . it in turn sustains,” making preservation through utilization critical.²⁶

Fundamental differences exist between the two knowledge systems of TEK and western science. The dissimilarities stem from opposing cultural values and worldviews. Similarities between the two systems, however, do exist. Scholars point to the holism embedded in both TEK and the study of ecology. Nevertheless, Gadgil et al. suggest that “ecology would first have to extricate itself from the older, utilitarian control over nature tradition of resources management” in order to be compatible with TEK.²⁷

²⁴ Ibid., 33.

²⁵ Thomas F. Thorton, “Subsistence in Northern Communities: Lessons From Alaska,” *The Northern Review* 23 (2001): 82.

²⁶ Eugene S. Hunn, “The Value of Subsistence for the Future of the World,” in *Ethnoecology: Situated Knowledge Located Lives*, ed. Virginia Nazarea (Tucson: University of Arizona Press, 1999), 24.

²⁷ Gadgil and Berkes, “Traditional Resource Management,” 138.

Proponents of TEK stress that integration of this knowledge system into contemporary management decisions could benefit both subsistence users and management agencies. However, as will be discussed below, difficulties sometimes arise during the initial integration phase.

5.3 Integration of TEK in Practice: Theories and Realities

Identifying the causes of conflict is the first step management agencies and user groups must take to formulate a plan to address a particular issue. Some authors have developed theories on effective implementation, as well as citing real world situations wherein the inclusion of TEK in fish and wildlife management has been put into policy.

The Inuvialuit or “real people” of northwestern Canada are an indigenous group believed to be descendants of the Thule, or proto-Inuit, people. Some Inuvialuit claim relations with Inupiat living in Alaska. The Inuvialuit, like Native tribes in the United States, maintain a special relationship with their national government. Like nearly all Alaska Native communities, the Inuvialuit never entered into treaties with their federal government (Canada). Instead, the Inuvialuit reached a land claims settlement with the federal government, the Inuvialuit Final Agreement (IFA), finalized in 1984.²⁸

The Inuvialuit received legal ownership of their traditional lands and subsurface mineral rights to several thousand square miles of the land included in the settlement. The IFA addressed aboriginal rights and co-management as well, affirming “the right to hunt and harvest anywhere

²⁸ “The Western Arctic Claim: Inuvialuit Final Agreement as Amended,” reprinted by Inuvialuit Regional Corporation, 1984. Accessed May 2014. <http://www.irc.inuvialuit.com/about/finalagreement.html>.

in the claim area, particularly as primary harvesters on certain lands known to be rich in wildlife. They also secured the responsibility for ensuring good wildlife management, becoming part of a wildlife management team with the government.”²⁹

According to Usher, “all comprehensive land claim agreements in Canada’s territorial North call for aboriginal beneficiaries to be involved directly in wildlife management.”³⁰ Section 14 of the IFA addresses the issue of “Wildlife Harvesting and Management.”³¹ The section lists five principles, one of which addresses the integration of TEK into management processes: “The relevant knowledge and experience of both the Inuvialuit and the scientific communities should be employed in order to achieve conservation.”³² Usher notes that despite the policy being in place, confusion continues regarding two related key issues: implementation and understanding TEK.³³

Essentially, management agencies have difficulty implementing TEK due to a lack of understanding of the knowledge system. This knowledge deficit, Usher explains, emerges as management agencies attempt to quantify and compartmentalize TEK. Further perpetuating the problem, management who may have limited understanding of TEK decide how to implement

²⁹ Ibid., 8.

³⁰ Peter Usher, “Traditional Ecological Knowledge in Environmental Assessment and Management,” *Arctic* 53, no. 2 (2000): 184.

³¹ “The Western Arctic Claim” from Inuvialuit Final Agreement Inuvialuit Regional Corporation P.O. Box 2120, Inuvik, NT X0E 0T0. 1984. 53.

³² Ibid.

³³ Usher, “Traditional Ecological Knowledge,” 183.

TEK, oftentimes with no consideration of local user input. As a result, many Canadian indigenous groups remain dissatisfied with current management approaches, despite policy in place that calls for their direct involvement, and despite the quite meaningful co-management taking place in Manitoba, as discussed in Chapter 4.³⁴

It is important to note that, as with the Inuvialuit, the policy of incorporating TEK into management processes, and the co-management of natural resources in northern Canada specifically, exists within the context of land claims agreements between indigenous peoples and the Canadian government. This is not the case in southern Canada where most agreements are based on treaties. In an article entitled “Decolonizing Co-Management in Northern Canada,” Canadian scholar Marc G. Stevenson analyzes two additional types of agreements typically used between indigenous people and the Canadian government: multi-stakeholder agreements and crises-based agreements.³⁵ As Stevenson explains, a common catalyst often spurs land claims agreements in Canada: settling land ownership to pave the way for resource development:

In addition to devolving the high costs of governance to northerners, resolving uncertainty over “ownership” between Aboriginals and non-Aboriginals and natural resources development often provides the impetus for the federal government to negotiate comprehensive land claim settlements with Aboriginal peoples. Alternatively, sharing in the economic benefits of resource development, while preserving Aboriginal values and gaining greater control over their futures,

³⁴ Ibid., 187-188.

³⁵ Stevenson, “Decolonizing Co-Management.”

frequently provides the incentives for Aboriginal peoples to negotiate land claims settlements with both levels of government.³⁶

Stevenson explains that land claims agreements typically include: an exchange of money for the ceded land, investment opportunities in the resource (if any) being developed, legal title to a specified amount of land, and, most importantly (for the purpose of this paper), a devolvement of management authority via the establishment of a cooperative management board.³⁷ As mentioned earlier, ANCSA extinguished the aboriginal hunting and fishing rights of Alaska Natives. The legislation offered no provision for the establishment of a cooperative fish and wildlife management regime.

Land claims agreements in Canada provide the framework for an equitable, cooperative form of fish and wildlife management between the government and local user groups. Scholars have developed theories on why attempts at policy-mandated integration of TEK and implementation of co-management have been unsuccessful in northern Canada. Stevenson explains that the structure itself, as well as terminology and practices, impeded indigenous groups' participation. Stevenson argues that: "Among the more insidious processes practiced by wildlife managers and other state authorities, however well-intentioned they may be, are the . . . imposition of state management policies, concepts, language, terminology, and practices on Aboriginal peoples."³⁸ Researcher Paul Nadasdy argues that First Nations groups have been

³⁶ Ibid.

³⁷ Ibid.

³⁸ Ibid.

forced to completely restructure their societies in an attempt to effectively communicate with the Canadian government and management agencies. Nevertheless, Nadasdy recognizes that this structure (despite shortcomings) enabled First Nations peoples to effectively negotiate land claims and/or resource management with the Canadian government.³⁹

According to Nadasdy, there exist two commonly held perspectives on the difficulties of integrating TEK into management processes. The first concerns the fundamental differences between the two knowledge systems and the struggle in finding common ground between two systems. This perspective stresses the lack of effective approaches to integration of TEK into management. The second perspective takes the issue of TEK integration out of the public arena and places it in more informal settings. Nadasdy explains that it is within these settings, outside of a state boardroom, that the true potential of TEK often emerges. He refers to instances wherein First Nations peoples, comfortable in their own surroundings and settings, provided their own perspectives regarding TEK and co-management. Similar to how some Alaska Natives view advisory councils as essentially meaningless, First Nations peoples express frustration with the lack of initiative on the part of management agencies that, despite policy mandates, continue to ignore indigenous user input and the value of TEK.⁴⁰

Canadian researcher Nicholas Houde, for instance, argues that: “As long as First Nations do not have more control over the final decisions being made in resource management and as

³⁹ Paul Nadasdy, *Hunters and Bureaucrats: Power, Knowledge and Aboriginal-State Relations in The Southwest Yukon*, (Vancouver: University of British Columbia Press, 2003), 25-27.

⁴⁰ Ibid., 22.

long as they do not participate more in the managing of that information, factual TEK is open to being misinterpreted or discarded when it does not serve the particular interests of the state or private interests represented by the state. This lack of control over TEK and its interpretation has been pointed out by many Aboriginals as a source of great concern.”⁴¹

Having struggled for several decades with assuming some form of equitable role in management, many First Nations peoples feel that attempts by the Canadian government and/or management agencies to integrate TEK into fish and wildlife management processes are merely acts of appeasement and not expressions of a genuine interest in working together.⁴² Kuskokwim subsistence users have expressed similar sentiments.⁴³ Furthermore, these efforts or perceived acts of appeasement on behalf of management agencies have ulterior motives in the eyes of many First Nations peoples. Some of these people argue that the agencies’ primary motive is to remain in complete control of resource management.⁴⁴ Nadasdy recounts several occasions while speaking with management agency personnel behind closed doors, including scientists, when they essentially expressed such attitudes, basically affirming First Nations people’s sense that management agencies tell people what they want to hear, without sincerity or trust, and that managers believe that TEK cannot be applied in today’s world, nor should it be attempted.⁴⁵

⁴¹ Nicolas Houde, "The Six Faces of Traditional Ecological Knowledge: Challenges and Opportunities for Canadian Co-Management Arrangements," *Ecology And Society* 12, no. 2 (2007): 5, doi:10.5751/es-02270-120234.

⁴² Ibid., 11.

⁴³ McDevitt field notes, Lower and Middle Kuskokwim In-Season Monitoring Project, June-July 2015-2017.

⁴⁴ Nadasdy, *Hunters and Bureaucrats*, 5.

⁴⁵ Ibid.

According to Nadasdy, current management structures and formalities accommodate management agencies far more than user groups.⁴⁶ As long as this is the case, one can argue that subsistence users will always be at a disadvantage. Usher urges a systematic approach to TEK integration, identifying certain requirements for doing so effectively: "Information from both sources must be collected, organized, and communicated. This must be done systematically, using established protocols, so as to minimize the dangers of overgeneralizing from limited information and untested assumptions."⁴⁷

Usher stresses the need for complete transparency throughout the process to render the decision-making as fair as possible, an improvement Nadasdy also deems necessary, because the decision-making process itself works against some indigenous groups.⁴⁸ Stevenson agrees that co-management systems increase conflict between indigenous groups and management agencies, as opposed to providing resolutions to these problems. He argues that involvement in co-management comes at a price: "Aboriginal peoples enter into co-management agreements at tremendous costs and disadvantage to themselves, their communities, and arguably even the species and habitats upon which they depend."⁴⁹

⁴⁶ Ibid.

⁴⁷ Usher, "Traditional Ecological Knowledge," 185.

⁴⁸ Ibid.

⁴⁹ Stevenson, "Decolonizing Co-Management."

Nadasdy and Stevenson base a significant portion of their arguments on the imposition of western culture on indigenous peoples of Canada. The latter argues that lack of understanding of TEK impedes its integration and use by management agencies in northern Canada. Furthermore, Stevenson argues that management agencies have made only weak efforts, and in his opinion, they continue to further management interests at the expense of user interests.⁵⁰

Stevenson suggests potential solutions, including a separation of powers or true power sharing, supported by mutual respect of each group's autonomy. Neither side should attempt to direct or influence or change the other group's intentions or priorities. He stresses that relationships between the groups must be emphasized, not only the resource in question, to provide indigenous peoples with an equitable voice in management.⁵¹

Usher also offers insight into the challenges that TEK integration has faced, largely owing to a lack of understanding of TEK on the part of management agencies and government officials. Usher argues that "no information, no form of knowledge, and no knowledge claim can be undisclosed or kept privileged from examination" during the policy-making process.⁵² Closed-door meetings and negotiations tend to create mistrust among groups; transparency, on the other hand, may foster trust, preventing conflict and reducing the chances of litigation. The

⁵⁰ Ibid.

⁵¹ Ibid.

⁵² Usher, "Traditional Ecological Knowledge," 185.

policymaking process within a co-managed system, however, requires more than just transparency. Essentially, actual power sharing is necessary for each side having equitable say.

Usher recommends making the process of integration less structured. Defining, classifying, categorizing, incorporating into phases, as Usher has suggested, increases the complexity of the process, adding more formalities and structures that make no sense or are impractical from a TEK perspective. Yet, contrary to what some authors have suggested, the integration of TEK into the management process in itself does not have to compromise TEK. The knowledge system is remarkably resilient.

More equitable processes, however, would allow integration of TEK by holders of the knowledge. As was evident in some co-management efforts, integrating TEK met with challenges including lack of understanding on the part of management. That led to misinterpretation, resulting in mismanagement. Some scholars have argued that “TEK cannot be extracted from its holder and from the context in which it was created without losing part of its meaning.”⁵³ Therefore, the holders of TEK should set their own parameters, agreed upon by both groups (subsistence users and management) in a negotiated compromise backed by a binding agreement. Without legal requirements to ensure that TEK enters into policy, integrating TEK into management systems will not provide users with any more authority than they have now.

In 1993 the Government of the Northwest Territories (GNT) implemented legislation stating that TEK “be incorporated into territorial government decisions where appropriate.” In

⁵³ Houde, “The Six Faces,” 3.

one instance, government assessment panels were required to give equal credibility and consideration to TEK during the environmental impact assessment (EIA) process. Local Dene peoples' TEK about a caribou herd in the Lac de Gras region of Northwest Territories (NWT) was incorporated into an EIA process in the hopes of mitigating any potential impacts resulting from the nearby Ekati diamond mine.⁵⁴

Despite seeming official acceptance of co-management concepts, including integration of TEK in management policies, some scholars have taken an opposing view. Political scientists Howard and Widdowson for instance argue that "the integration of traditional knowledge hinders rather than enhances the ability of governments to more fully understand ecological processes."⁵⁵ Citing the Canadian Charter of Rights and Freedoms' stance on the separation of church and state, Howard and Widdowson conclude that the integration of TEK equates to an imposition of people's (Natives) religious beliefs on other individuals (management agencies, development companies, the public), and is therefore unconstitutional. They mention that some tribal leaders themselves have been unable to specifically define TEK during negotiations with management agencies, citing the Ekati mine environmental assessment process as an example. Howard and Widdowson discuss the challenges and controversy surrounding TEK integration: the confusion it has causes in government processes, a lack of a clear understanding (on the part of government) leading to mismanagement, and the consequences of utilizing unchecked

⁵⁴ Tsuji and Ho, "Traditional Environmental Knowledge," 328.

⁵⁵ Albert Howard and Frances Widdowson, "Traditional Knowledge Threatens Environmental Assessment," *Policy Options/Options Politiques* (1996), 35.

knowledge claims. Interestingly, the authors contend that “traditional knowledge has been granted a sanctity which could lead to the acceptance of incorrect conclusions.”⁵⁶ Arguably western science methods have enjoyed a great deal of sanctity since their inception. Certainly, western scientific methods have produced several incorrect conclusions, which have later been discovered. Having said that, I am not proposing a debate as to which system is better; both systems offer value. However, Howard and Widdowson seem to have forgotten that science, like TEK, is not infallible. TEK is constantly evolving, and is a system largely based on experimentation, as is western science, although TEK lacks a written record. Based on the lack of written documentation, Howard and Widdowson feel that the integration of TEK essentially translates to a “take my word for it type of policy” that offers very little if any credibility.⁵⁷

Howard and Widdowson infer that indigenous leaders will misappropriate government funds designated for the study of TEK.⁵⁸ They write: “The importance of Traditional Knowledge lies not in its understanding of environmental impacts but in an ability to extract money from government.”⁵⁹ The prospect of monetary compensation, they contend, is the primary objective of native leaders insomuch as they willingly acquiesce to the Canadian government in the hopes of cashing in, at the expense of their own culture.⁶⁰

⁵⁶ Howard and Widdowson, “Traditional Knowledge Threatens,” 35.

⁵⁷ *Ibid.*, 34.

⁵⁸ *Ibid.*, 35.

⁵⁹ *Ibid.*, 36.

⁶⁰ *Ibid.*, 35.

As evidence for their arguments against spiritually-based TEK, Howard and Widdowson cite the 1994 case of three Canadian Inuit hunters from Igloolik (then in the Northwest Territories, now in Nunavut) harvesting a bowhead whale out of season, while harvesting of that species was banned in all eastern arctic waters. The ban was originally implemented as a result of the decimation of the bowhead population by European whalers in the nineteenth century.⁶¹ Widdowson and Howard note that the Inuit hunters violated their own regulations, because they had voluntarily agreed to the hunting ban, yet chose to disregard the law. According to the authors, the hunters harvested the whale so that they could provide muktuk to a dying elder. They claim that the harvest was not only illegal, but unjustifiable, owing to the spiritual nature of TEK. The Inuit believe that animals allow themselves to be caught and oftentimes present themselves to the hunter, the authors note.⁶² Howard and Widdowson use this particular case as a warning, stating that “here one can see the danger of applying traditional knowledge to wildlife management.”⁶³

The authors were misinformed on the facts of the case however. Contrary to what Howard and Widdowson have suggested, the hunt was not conducted for the sole purpose of fulfilling a dying elder’s craving for muktuk. The elder in question, Noah Piugaattuk, explained that he in fact *ordered* the hunters to go out and catch a whale. Piugaattuk argued, as did many

⁶¹ "Canadian Inuit About to Take Bowhead Whale," WDC: Whale And Dolphin Conservation, accessed November 2015, <http://us.whales.org/news/1998/07/canadian-inuit-about-to-take-bowhead-whale>.

⁶² Howard and Widdowson, “Traditional Knowledge Threatens,” 34-36.

⁶³ Ibid., 36.

other members of the community, that they no longer needed to be subjected to a bowhead harvest ban that had been in place since the 1970s because the whale population had increased to allow for sustainable harvests. Older community members agreed that it had been much too long since the people of Igloodik last caught a bowhead. Despite the cultural significance and long-lasting relationship of the bowhead to the Inuit, some villagers explained that many members of the community had never even tasted muktuk, let alone seen a whale up close. Furthermore, community members contended that the hunting ban prevented the generational transmission of critical bowhead hunting knowledge.⁶⁴ Fisheries and Oceans Canada filed charges against the three hunters, but in 1996, the Canadian government decided to drop the charges. Government officials reasoned that pursuing a prosecution would inevitably result in a legal quagmire. The case was considered a major victory for the people of Nunavut.⁶⁵ Despite what Howard and Widdowson have argued, this case was not an example of TEK's incompatibility with wildlife management inasmuch as it represented a fight for the protection of TEK and aboriginal rights.

The Igloodik case exemplifies the value of TEK to these people. As the people of Igloodik explained, due to the ban, much of the TEK associated with bowhead hunting had been lost; it was important for them to regain this knowledge so that they could maintain this essential part of their culture. One year prior to the harvest, the people of Igloodik secured protections of their subsistence rights through the Nunavut Land Claims Agreement (NLCA). The people of Igloodik

⁶⁴ *Arviq!*, (Isuma Productions, Inc.), accessed November 2015, <https://www.isuma.tv/isuma-productions/arviq-bowhead>, video.

⁶⁵ Jason Van Rassel, "Ottawa Drops Charges Against Whale Hunters," *Nunatsiaq News*, 1996, accessed November 2015, <http://www.nunatsiaqonline.ca/archives/back-issues/week/60607.html>.

viewed the catch, legal or illegal, as an assertion of these newly protected rights. Ottawa considered the Inuit's justification for the hunt, and they dropped the charges.⁶⁶

5.4 Conclusion

Considerable progress has been achieved between indigenous groups and the Canadian government regarding co-management of natural resources. The 1993 NWT policy mandating that TEK be integrated into the environmental assessment process was a significant achievement. The creation of Nunavut and devolution of fish and wildlife authority to the people through the NLCA was a monumental piece of legislation for thousands of indigenous people.

Aboriginal fishing, hunting, and gathering rights are protected in Section 35 of the Canadian Constitution which states: "The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed."⁶⁷ This protection provides indigenous groups with the necessary legal foundation to continue protecting those rights. Ensuring the protection of these rights is an ongoing challenge for native groups. Nevertheless, the mandate provides groups with some leverage in interacting with their national government. As this thesis has shown however, relationships between indigenous groups of northern Canada and government management agencies vary.

The conflicts between indigenous groups and fish and wildlife agencies are often rooted in cultural differences, as has been illustrated. Notwithstanding these differences, indigenous

⁶⁶ Ibid.

⁶⁷ "Constitution Act, 1982 – Section 35," Manitoba Education and Training, accessed November 2015, https://www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr6/blms/6-3-2c.pdf.

groups in both Canada and Alaska must meet agencies on the terms the agencies have created and established. Groups like the KRITFC in Alaska have organized themselves to meet these demands to satisfy bureaucratic requirements as they strive to effect processes involved in natural resource management. The public input structures provided through state and federal management agencies call for local involvement in the management process, but within constraints imposed by agency norms. Local subsistence users' capacity to influence policy remained limited.

Chapter 6

Conclusion

*"A fishery cannot be managed effectively without the cooperation and participation of fishers to make laws and regulations work."*¹

Co-management presupposes equitable participation of user groups. In a co-managed system, theoretically, decisions are made based on each group's input. Compromises are accomplished through negotiations. One group should have no more authority or power than another group. Subsistence users justify their argument for the need of co-managed fish and wildlife oversight based on their rights as users of the resources and their in-depth knowledge of the resources and benefits that such knowledge would bring to management. These justifications and rationales are shared among many indigenous groups seeking to gain more authority in the management of the renewable natural resources on which they depend.

This resistance to co-management is largely one-sided. In the case of the Kuskokwim salmon fishery, Alaska Native groups are not demanding that management agencies provide justification for the methods that agency's use in their approach to natural resource management. State management agencies enjoy implicit legitimacy, owing to the state's sovereign authority, despite their opaque procedures and policies.

¹ Robert S. Pomeroy and Fikret Berkes, "Two To Tango: The Role Of Government In Fisheries Co-Management," *Marine Policy* 21, no. 5 (1997): 465-480, doi:10.1016/s0308-597x(97)00017-1.

Despite Canada's acknowledgment of indigenous rights to co-management of resources, Canadian indigenous peoples oftentimes find themselves pressed to legitimize themselves and their knowledge systems, essentially having to defend their cultural identity and "prove" its worth. The demand for further legitimization implies a certain degree of sanctity in western science that undervalues TEK. Furthermore, the entire bureaucratic process, with all of its complexities and legalese, discourages user involvement.

Alaska Native subsistence salmon users living along the Kuskokwim maintain the system of "collaborative management" with state and federal management agencies responsible for the management of the Kuskokwim's salmon fishery. The primary medium for subsistence user input is participation in advisory committees under State management and regional advisory councils (RAC) under Federal Management. The maximum capacity that subsistence users have in effecting management policies and influencing the management process is by providing suggestions as to the direction they think management should be taking. Management agencies do not have to acknowledge or incorporate such user input. Such public input opportunities therefore should be scrutinized to determine whether they offer any value. Institutional constraints, including the state constitution, which mandates equal access to Alaska's natural resources by all users, hinders state agencies from prioritizing some users' needs over other user needs. Notwithstanding, Emmons' 1905 recommendation that "just laws should be extended to these people; they should be protected in their living,"² over a century later, many Alaska Native subsistence users would argue that they are not receiving this protection.

² Emmons, "Conditions and Needs," 3.

Alaska Native subsistence salmon users on the Kuskokwim River have a stronger ally in the United State government, as they strive to strengthen their role in the management process. Nevertheless, they will have to continue to press for changes within the State of Alaska's management processes, beginning with demands for restructuring of the Board of Fisheries. Considering the integral role that subsistence economies play throughout rural Alaska, and the fact that the state in 1978 prioritized subsistence usage in state law, the board that is entrusted with the food security for thousands of rural residents must include stronger representation by and for subsistence users. The BOF should be structured to allow equal representation for all interest groups, including subsistence users. When it comes to decisions that directly affect subsistence salmon fishers on the Kuskokwim, subsistence salmon users should be granted the ability to share decision-making authority with management agencies and help shoulder management responsibilities.

Managers need to recognize that their duties go beyond fisheries research and assessment, rules and regulations, and that their success in interacting with local users largely hinges on their ability to communicate clearly and effectively with the public. I recommend that managers be required to take extensive cross-cultural training so that they can improve upon these communication skills in order to ensure that their approach is culturally appropriate, accommodating, and respectful. Effective communication through an increase in public outreach programs (drainage-wide) will positively impact local users' receptiveness to management agencies, help to clarify confusion felt among users, and improve the overall relationship between users and management agencies.

Management agencies host dozens of inter-agency meetings throughout the summer to discuss the fishery. Oftentimes, these meetings are open to the public. However, the vast majority of these in-season meetings are held at the ADFG office in Bethel. I recommend that these meetings be held in various villages throughout the drainage, to include the middle and upper-river communities. Furthermore, I recommend that meetings be conducted in the local Alaska Native language with translators available to management agencies. This will allow users to conduct a discussion in their own community, on their own terms, and in a familiar setting.

The State should consider the establishment of an MOU with the KRITFC, or at the very least, the State should enter into the same MOU that has been established between the USFWS and KRITFC. The MOU between ADFG and USFWS explicitly outlines their relationship in the context of the shared responsibility of fish and game management. The MOU between the USFWS and the KRITFC does much of the same. Although the State shares a considerable amount of management responsibility with the USFWS, the failure or reluctance of the state to enter into negotiations with the KRITFC will only continue to negatively impact the state's ability to effectively manage the fishery in accordance with collective goals set forth by local users and the USFWS; a failure to mend this disconnect between ADFG and local users will widen the distance between local users' and the State. Although the state does not share the same exclusive relationship with Alaska Natives as does the federal government, it is still obligated to protect subsistence and its users.

Poor salmon returns on the Kuskokwim demand a conservational approach to management. Users must continue to make sacrifices for the betterment of the fishery. This

includes residents recognizing and respecting the regional differences between the lower, middle, and upper regions of the river. Some Alaska Native groups' resilience and propensity to adapt has facilitated their ability to adjust and engage in a bureaucratic environment that to this day remains foreign to most. Successes in navigating the bureaucratic processes of fish and wildlife management in Alaska are notable (Alaska Eskimo Whaling Commission, Migratory Bird Council), and a step in the right direction. Although Alaska Natives are entitled to the protection afforded to them by the federal government, a relationship that predates and supersedes state sovereignty, the Kuskokwim salmon fishery is a dually managed system, and therefore subsistence users must be meaningfully involved in state management processes, as well. In other words, all interested parties must work together to see that subsistence users are afforded "reasonable" opportunities to harvest the salmon they need. And "reasonable" should be an amount agreed upon not only by the acting management agencies, but by the users themselves.

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